Massachusetts Department of Environmental Protection
Bureau of Waste Prevention
Industrial Wastewater

APPLICATION FOR PERMIT FOR INDUSTRIAL SEWER USE

BWP IW 38

Facility Discharging More Than 50,000 gpd to IPP POTW

January 2008

Prepared For:

Rohm & Haas Electronic Materials, LLC
455 Forest Street
Marlborough, MA 01752

Prepared By:
ENVIROBUSINESS, INC.
21 B Street
Burlington, MA 01803
Phone (800) 786-2346

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EBI CONSULTING
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21 B Street
Burlington, MA 01803
Tel: (781) 273-2500
Fax: (781) 273-3311

January 11, 2008

Mr. Giles Steele-Perkins
Massachusetts Department of Environmental Protection
Central Regional Office
Industrial Wastewater Management Program
627 Main Street
Worcester, Massachusetts 01608

Re: Application for Permit for Industrial Sewer Use (BWP IW 38)
Rohm & Haas Electronic Materials, LLC

As required by 314 CMR 7.00, please find attached two paper copies and one disk with an electronic copy of a completed Application for Permit for Industrial Sewer Use (BWP IW 38) for the industrial wastewater discharge from the Rohm & Hass Electronic Materials, LLC (RHEM) facility in Marlborough, Massachusetts. RHEM discharges more than 50,000 gpd to the Marlborough Westerly Wastewater Treatment Plant. The Marlborough Treatment Plant is a POTW with an approved Industrial Pretreatment Program (IPP).

EBI Consulting has prepared this Certification on behalf of RHEM. Please contact me with any questions or concerns regarding this Application.

Sincerely yours,
EBI Consulting, by:

Paul G. Richard, P.E.
Senior Program Director
Direct Tel: (617) 715-1825
prichard@EBIConsulting.com

attachments: Application for Permit for Industrial Sewer Use (two paper copies and one disk)

copy: Sarita Croce - RHEM

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ATTACHMENT C	Site Map and DEP Priority Resource Map
ATTACHMENT D	Engineering Plans
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1. TRANSMITTAL FORM

Enter your transmittal number → W201133 (Transmittal Number)

Your unique Transmittal Number can be accessed online: http://mass.gov/dep/service/online/trasmfrm.shtml or call MassDEP's InfoLine at 617-338-2255 or 800-462-0444 (from 508, 781, and 978 area codes).

Massachusetts Department of Environmental Protection

Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. **Copy 2** must accompany your fee payment. **Copy 3** should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP
P.O. Box 4062
Boston, MA
02211

*** Note:**
For BWSC Permits, enter the LSP.

A. Permit Information

1. Permit Code: 7 or 8 character code from permit instructions	2. Name of Permit Category
BWP IW 38	Permit for Industrial Sewer User

3. Type of Project or Activity: Industrial Sewer User in IPP POTW discharging more than 50,000 GPD

B. Applicant Information – Firm or Individual

1. Name of Firm - Or, if party needing this approval is an individual enter name below: Rohm and Haas Electronic Materials, LLC

2. **Last Name** of Individual	3. **First Name** of Individual	4. MI

5. Street Address: 455 Forest Street

6. City/Town	7. State	8. Zip Code	9. Telephone #	10. Ext. #
Marlborough	MA	01752	(508) 229-7250	

11. Contact Person	12. e-mail address (optional)
Sarita Croce	SCroce@rohmhaas.com

C. Facility, Site or Individual Requiring Approval

1. Name of Facility, Site Or Individual: Rohm and Haas Electronic Materials, LLC

2. Street Address: 455 Forest Street

3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #
Marlborough	MA	01752	(508) 229-7250	

8. DEP Facility Number (if Known)	9. Federal I.D. Number (if Known)	10. BWSC Tracking # (if Known)
130595	04-3252691	

D. Application Prepared by (if different from Section B)*

1. Name of Firm Or Individual: EnviroBusiness, Inc. (d/b/a EBI Consulting)

2. Address: 21 B Street

3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #
Burlington	MA	01803	(781) 273-2500	

8. Contact Person	9. LSP Number (BWSC Permits only)
Paul Richard	

E. Permit - Project Coordination

1. Is this project subject to MEPA review? ☐ yes ☒ no
If yes, enter the project's EOEA file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

F. Amount Due

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

Special Provisions:

1. ☐ **Fee** Exempt (city, town or municipal housing authority)(state agency if fee is $100 or less).
There are no fee exemptions for BWSC permits, regardless of applicant status.
2. ☐ Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
3. ☐ Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
4. ☐ Homeowner (according to 310 CMR 4.02).

Check Number	Dollar Amount	Date
	$1,605	

2. INTRODUCTION

As required by 314 CMR 7.00 (Sewer System Extension And Connection Permit Program) for facilities that discharge more than 50,000 gallons per day (gpd) to a Publicly Owned Treatment Works (POTW) with an Industrial Pretreatment Program (IPP), Rohm and Haas Electronic Materials, LLC (RHEM) is hereby submitting an application for a Permit for Industrial Sewer Use, BWP IW 38 (the Application), to the Massachusetts Department of Environmental Protection, Bureau of Waste Prevention – Industrial Wastewater.

RHEM operates a chemical blend plant at 455 Forest Street in Marlborough Massachusetts. A portion of a USGS topographic map (Marlborough Quadrangle) is presented in Attachment C, which depicts the location of the facility. The facility was constructed on a "greenfield" site (former apple orchard) in 1981 at a location known as Stirrup Hill in northwest Marlborough.

Operations at the RHEM facility are described by SIC Code 2899 (Chemicals and Chemical Preparations, Not Elsewhere Cclassified). The RHEM Marlborough facility prepares specialty chemicals for the electronics and related industries, including photo resists (organic manufacturing), developers, etchers, cleaners, plating solutions (inorganic manufacturing), and catalysts used in printed wire board manufacturing (dry chemical manufacturing). For research and development (R&D) and quality control, the facility operates pilot size clean rooms to process semiconductor wafers and plating lines to process printed wire boards. The facility also operates a number of quality control and analytical laboratories to support manufacturing and R&D operations.

Based upon correspondence with the City of Marlborough in May 1996, it has been determined that the facility is not a Categorical Industrial User (CIU) subject to the federal categorical standards of 40 CFR Chapter I, Subchapter N. Specifically, while the company blends a number of different organic and inorganic commodity chemicals, it does not synthesize, chemical react or otherwise manufacture any chemicals that would be covered by a categorical standard.

The vast majority of the wastewater generated by the processes described above is treated on-site in a Class IV Industrial Wastewater Pretreatment System (Main Pretreatment Facility); a much smaller portion is treated in a Class II Industrial Wastewater Pretreatment System (ATC Pretreatment System). The effluent from both systems is discharged to the City of Marlborough Westerly Waste Treatment Works under permit SIU 4817950 (Main Pretreatment Facility – Outfall S01) and NSIU 4817950-1 (ATC Pretreatment – Outfall NS02).

The facility's two IWPS's are currently treating a combined total flow of approximately 30,000 - 45,000 gallon per day (gpd), but the Main Pretreatment Facility is designed to accommodate flows as large as 90,000 gpd at maximum projected production levels.

The IWPS is further detailed in the BWP IW 38 Application Form found in Section 2.0, and Attachment E, Description of IWPS. Wastewater sampling results are presented in Attachment A; existing POTW sewer use permits are found in Attachment B; a DEP Priority Resource Map is found in Attachment C; and IWPS Engineering Plans and Process Flow Diagrams have been included in Attachment D.

- Main Pretreatment Facility
- ATC Pretreatment System

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention – Industrial Wastewater

BWP IW 38 & BWP IW 39

Permit for Industrial Sewer User

W201133
Transmittal Number

130595
Facility ID# (if known)

DEP Use Only

Date Received

Important Instructions for Completing This Form

The questions on this form apply to existing and new facilities discharging industrial wastewater to sewers. If you are completing this form for an existing facility, answer the questions as they apply to its current status. If you are completing this form for a new facility, your answers will reflect your commitment to comply with the requirements as set forth in each question.

Existing facilities are defined as facilities in existence as of July 12, 2007. New facilities are defined as facilities constructed after July 12, 2007.

Answer all questions, except those that you are directed to skip. Please DO NOT answer questions that you are directed to skip

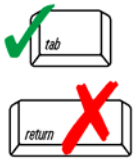
Permit Category (Select One)

☒ BWP IW 38: Industrial Sewer User in IPP POTW discharging more than 50,000 GPD

☐ BWP IW 39: Industrial Sewer User in Non-IPP POTW discharging more than 25,000 GPD

A. Facility Information

Important:
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Rohm and Haas Electronic Materials, LLC
1a. Facility Name

455 Forest Street
1b. Facility Address 1

1c. Facility Address 2

Marlborough	MA	01752
1d. City	1e. State	1f. Zip Code

(508) 229-7250	(508) 460-0522
1g. Phone Number	1h. Fax Number

04-3252691
1i. Federal Employer Tax Identification Number (FEIN or TIN)

Mailing Address: ☒ Check here if same as Facility Address and skip to Contact Information.

2a. Mailing Address: Street or P.O. Box

2b. Mailing Address 2

2c. City	2d. State	2e. Zip Code

Contact Information:

Sarita Croce
3a. Contact Person Name

Environmental Engineering Manager
3b. Contact Person Title

(508) 229-7250	
3c. Phone Number	3d. Extension

SCroce@rohmhaas.com
3e. Email Address

B. Industrial Wastewater Information

1. Project Description (Check All That Apply)

☐ 1a. New Construction

☐ 1b. Permit Renewal

☐ 1c. Increasing Flow From Existing Connection

☐ 1d. New or Modified Industrial Wastewater Pretreatment System (IWPS)

☒ 1e. Existing Unpermitted Connection
(Constructed Before 7/12/07 – **BWP IW 10 was submitted to MADEP in December 1996**)

2. List, in descending order of significance, the Standard Industrial Classification (SIC) codes, which best describe the facility producing the discharge in terms of the principal products or services provided. Also, specify each classification title. (See Appendix B in the Instructions)

2899	Chemicals and Chemical Preparations, NEC
2a. SIC Code	Description
2b. SIC Code	Description
2c. SIC Code	Description
2d. SIC Code	Description

3. List all sewer connection(s) and their maximum daily flow(s) in gallons per day (GPD) from your facility going to the Publicly Owned Treatment Works (POTW): **(flow data presented below for S01 is for period from 11/2006 through 10/2007)**

	S01 3a. Connection #	NS02 3b. Connection #	 3c. Connection #	3d. Total Flow, All Connections
SANITARY	14,900 GPD	 GPD	 GPD	14,900 GPD
INDUSTRIAL	45,100 GPD	 GPD	 GPD	45,100 GPD
TOTAL	60,000 GPD	258 GPD	 GPD	60,353 GPD

4. Are you in compliance with the Massachusetts Historical Commission requirements?

☒ Yes ☐ No* *If No, You Must Comply With Massachusetts Historical Commission Requirements **BEFORE** You Can Submit This Application.

5. Are you in compliance with Massachusetts Environmental Policy Act (MEPA) requirements?

☒ Yes ☐ No* *If No, You Must Comply With MEPA Requirements **BEFORE** You Can Submit This Application.

B. Industrial Wastewater Information (continued)

6. Check all pollutants that are present in your industrial wastewater **before** pretreatment, or if not treated, before discharge:

☒ 6a. Metals, Asbestos, Cyanide, Phenols

If Metals, Asbestos, Cyanide, or Phenols are present, provide concentrations in milligrams per liter (mg/L):

1. Antimony (total) (Sb)	**See Attachment A** mg/L	9. Nickel (total) (Ni)	mg/L
2. Arsenic (total) (As)	mg/L	10. Selenium (total) (Se)	mg/L
3. Beryllium (total) (Be)	mg/L	11. Silver (total) (Ag)	mg/L
4. Cadmium (total) (Cd)	mg/L	12. Thallium (total) (Tl)	mg/L
5. Chromium (hexavalent)	mg/L	13. Zinc (total) (Zn)	mg/L
6. Chrome (total) (Cr)	mg/L	14. Asbestos	mg/L
7. Copper (total) (Cu)	mg/L	15. Cyanide (total) (CN)	mg/L
8. Lead (total) (Pb)	mg/L	16. Phenols (total)	mg/L

☒ 6b. Toxic Pollutants (See Section 17B in the Instructions.)

If Toxic Pollutants are present, provide the total Toxic Pollutants concentration in micrograms per liter (ug/L):

See Toxic Pollutant Forms and Attachment A
6b1. Total Toxic Pollutants Concentration (ug/L)

NOTE: Use the **Toxic Pollutants Form** to list individual toxic chemicals and their concentrations.

☒ 6c. Total Petroleum Hydrocarbons (TPH) > 15 mg/L

☒ 6d. pH <5 and >10 Standard Units (S.U)

☒ 6e. Other*

*If Other Pollutants are present, describe them:

BOD, TSS, nitrogen and phosphorous - See wastewater sampling results in Attachment A

B. Industrial Wastewater Information (continued)

7. Is Mercury (Hg) present in your industrial wastewater **before** pretreatment, or if not treated, before discharge?

☐ Yes ☒ No* *If No, skip to Question 8.

7a. If Yes, have you identified all possible mercury sources and taken all reasonable steps to eliminate the mercury?

☐ Yes* ☐ No *If Yes, skip to Question 8.

7b. If No, explain why.

NOTE: As of May 1, 2009, all facilities must meet a discharge limit of 1 part per billion (ppb) for Mercury.

8. What is the name of the Publicly Owned Treatment Works (POTW) that receives your wastewater? (See Appendix C in the Instructions.)

Marlborough Westerly Waste Treatment Works
Name of POTW

9. Do you have a current sewer connection discharge permit or a current written approval issued by your local POTW? (See Section 17B in the Instructions.) **See Attachment B for permits.**

☒ Yes ☐ No* *If No, you must obtain either a permit or, if a permit is not required, a written approval from your local POTW to discharge **BEFORE** you can submit this application.

If you have a permit, provide the following information, then skip to Question 10.

SIU 4817950 (S01) & NSIU4817950-1 (NS02)
9a. Permit Number

12/03/2011 (S01) and 02/09/2008 (NS02)
9b. Permit Expiration Date

If you have a written approval, provide the following information:

9c. Date of Approval Letter

9d. Name of Person Who Signed the Letter

10. Are your POTW and local Sewer Authority the same entity? (See Section 17B in the Instructions.)

☒ Yes* ☐ No *If Yes, skip to Question 12.

B. Industrial Wastewater Information (continued)

11. Do you have a current sewer connection discharge permit or a current written approval issued by your local Sewer Authority? (See Section 17B in the Instructions.)

☐ Yes ☐ No* If No, you must obtain either a permit or written approval from your local Sewer Authority to discharge **BEFORE** you can submit this application.

If you have a permit, provide the following information, then skip to Question 12.

11a. Permit Number

11b. Permit Expiration Date

If you have a written approval, provide the following information:

11c. Date of Approval Letter

11d. Name of Person Who Signed the Letter

12. Is your facility currently classified as a Categorical Industrial User (CIU) pursuant to Federal Regulations? (See Appendix D in the Instructions.)

☐ Yes ☒ No* *If No, skip to Section C.

12a. List all the Categorical Pretreatment Standards applicable to your facility.

12a1. Part Number — Point Source Category

12a2. Part Number — Point Source Category

12a3. Part Number — Point Source Category

12a4. Part Number — Point Source Category

C. Industrial Wastewater Pretreatment System

1. Do you have an on-site industrial wastewater pretreatment system (IWPS) to treat your industrial wastewater?

☒ Yes ☐ No* *If No, skip to Section D.

1a. How many IWPSs do you have?

2
Number

NOTE: If you have more than one IWPS, please use an **Additional IWPS Form** for each additional IWPS.

1b. Provide a unique identifier (i.e. name) for this IWPS:

Main Pretreatment System – Outfall CO1
Identifier/Name

C. Industrial Wastewater Pretreatment System (continued)

1c. What is the Total Design Capacity of this IWPS?

90,000
Gallons Per Day

1d. What is the Average Daily Flow of this IPWS? (Estimate if this is a new facility.)

32,900 (12 month period from 11/2006-10/2007 for outfall C01)
Gallons Per Day

1e. What is the Maximum Daily Flow of this IWPS? (Estimate if this is a new facility.)

45,100 (12 month period from 11/2006-10/2007 for outfall C01)
Gallons Per Day

2. Is your IWPS designed and constructed to meet all local discharge standards and the applicable Categorical Industrial User (CIU) standards in 40 CFR Chapter I, Subchapter N?

☒ Yes ☐ No* *If No, you must take immediate steps to address the non-compliance **BEFORE** you can submit this application.

3. Does this IWPS treat hazardous industrial wastewater or hazardous industrial wastewater sludge as defined in 314 CMR 7.02?

☒ Yes ☐ No* *If No, skip to Question 12.

3a. Are you treating concentrated chemical baths, e.g. spent chemical baths, or off-specification products?

☒ Yes ☐ No* *If No, skip to Question 4.

3b. If Yes, describe the concentrated chemical baths you are treating.

The waste chemistry associated with circuit board technology.

4. Does your IWPS meet the requirements of "treatment which is an integral part of the manufacturing process" as defined in 310 CMR 30.010?

☒ Yes* ☐ No *If Yes, skip to Question 7.

5.Do you store hazardous industrial wastewater or hazardous industrial wastewater sludge that is generated in your IWPS or in your production processes, in tanks or containers?

Note: If you use in-ground tanks for storage of hazardous industrial wastewater or sludge and your IWPS is located in a Drinking Water Zone (see Section 17C of the Instructions; reference language in 310 CMR 30.605), you are not eligible to apply for a BWP IW 38 or BWP IW 39 permit. You must use form BWP IW 40 instead.

☐ Yes ☐ No* *If No, skip to Question 7.

C. Industrial Wastewater Pretreatment System (continued)

6. Are you in compliance with the requirements for tanks and containers in 310 CMR 30.342 and 343? (See Section 17C in the Instructions)

☐ Yes ☐ No* *If No, you must take immediate steps to address the non-compliance **BEFORE** you can submit this application.

7. Do you have a U.S. Environmental Protection Agency (EPA) hazardous waste generator identification number?

☒ Yes ☐ No* *If No, skip to Question 7b.

7a. What is your EPA identification number?

MAD 000844498 Skip to Question 8.
EPA ID #

7b. Explain why you do not have an EPA identification number.

8. Do you have a visible sign in place that warns against unauthorized entry into the IWPS area?

☒ Yes* ☐ No *If Yes, skip to Question 9.

8a. Explain why you do not have a visible sign in place.

9.Do you have the required spill containment for the IWPS? (See Section 17C in the Instructions.)

☒ Yes* ☐ No *If Yes, skip to Question 10.

9a. Explain why you do not have the required spill containment.

10. Is your IWPS located on land subject to flooding from a 100-year storm? (See Section 17C in the Instructions.)

☐ Yes ☒ No*** (See Attachment C)** *If No, skip to Question 12.

C. Industrial Wastewater Pretreatment System (continued)

11. Are you in compliance with the flood-proofing provisions in 310 CMR 30.701(2)? (See Section 17C in the Instructions.)

☐ Yes ☐ No* *If Yes, skip to Question 12.

11a. Explain why you are not in compliance with the flood-proofing provisions in 310 CMR 30.701(2).

12. What type of IWPS do you have? (Check all that apply.)

☐ Fully Automated Industrial Wastewater Pretreatment System (FAIWPS)

☒ Continuous Discharge IWPS ☐ Batch IWPS

13. Is the IWPS exempt from classification? (See Section 17C in the Instructions.)

☐ Yes* ☒ No *If Yes, skip to Question 14.

13a. What is the classification of this IWPS? (See 257 CMR 2.13: Classification of Wastewater Treatment Facilities.)

☐ Class 1I ☐ Class 2I ☐ Class 3I

☒ Class 4I ☐ Class 5 or 6C ☐ Class 1M

☐ Class 2M ☐ Class 3M ☐ Class 4M

13b. How was the IWPS' classification determined?

☐ In accordance with the requirements in 314 CMR 7.05(2)(g) 4. c. or d.

☒ By the Board of Certification of Operators of Wastewater Treatment Facilities

☐ Both

14. Is the IWPS staffed in accordance with the requirements of 314 CMR 7.05(2)(g) 5? (See Section 17C in the Instructions.)

☒ Yes* ☐ No *If Yes, skip to Question 15.

C. Industrial Wastewater Pretreatment System (continued)

14a. Explain why the IWPS is not staffed in accordance with 314 CMR 7.05(2)(g) 5.

15. Is this your first permit application under Permit Category BWP IW 38 or BWP IW 39 for this IWPS? Or, is this application a request for modification of this IWPS that currently has a BWP IW 38 or BWP IW 39 permit?

☒ Yes* ☐ No

*If Yes, you need to submit as an attachment the process flow diagram and description of the principal treatment processes for your IWPS. Otherwise, skip to Question 17.

16. How many attachments are included with this application in response to Question 15?

2: See Attachments D and E
Number of Attachments

17. Have your sewer connection and IWPS been designed and constructed in compliance with the design and construction standards as set forth in 314 CMR 7.05(2)(g)3?

☒ Yes ☐ No*

*If No, skip to Question 17b.

17a. What is the Massachusetts Registered Professional Engineer (MAPE) signature date on the engineering plans?

January 1, 2008
Date

Skip to Question 18.

17b. Explain why your sewer connection and IWPS have not been designed and constructed in compliance with the design and construction standards as set forth in 314 CMR 7.05(2)(g)3.

18. Provide the following information about the Massachusetts Registered Professional Engineer (MAPE) who reviewed, stamped, and signed your engineering plans:

Christopher A. Walton
18a. Name

(781) 273-2500
18b. Phone Number

39510
18c. Mass. P.E. License Number

Civil
18d. Mass. P.E. Specialty

C. Industrial Wastewater Pretreatment System (continued)

19. Do you have an IWPS operation and maintenance manual that complies with the procedures and other requirements in 314 CMR 7.05(2)(g)6.?

☒ Yes* ☐ No *If Yes, skip to Question 20.

19a. Explain why you do not have the required IWPS operation and maintenance manual.

20. Are you keeping your IWPS operation and maintenance manual current?

☒ Yes ☐ No

21. Are you implementing your IWPS operation and maintenance manual?

☒ Yes ☐ No

D. Monitoring, Reporting & Recordkeeping

1. Are you keeping your currently effective sewer discharge permit(s), IWPS plan(s), and current operation and maintenance manual(s) (as applicable) on-site at all times?

☒ Yes* ☐ No * If Yes, skip to Question 2.

1a. Explain why you are not keeping these records on-site at all times.

2. Are you keeping all your required records including your wastewater monitoring and analyses records, operation and maintenance records and logs, bills of lading, summary reports of all incidents requiring implementation of the safety plan, and hazardous waste manifests (as applicable) on-site for at least three years?

☒ Yes* ☐ No * If Yes, skip to Question 3.

2a. Explain why you are not keeping these records on-site for at least three years.

D. Monitoring, Reporting & Recordkeeping (continued)

3. [Reserved for Toxics Reporting]

Additional reporting requirements will be added to this section in the future.

E. General & Specific Prohibitions

1. After carefully reviewing all of the general and specific prohibitions listed below, are you in compliance with these General and Specific Prohibitions?

☒ Yes* ☐ No *If Yes, read Section F and then complete Section G.

1a. Identify all the prohibitions you are not in compliance with and explain why. Attach an additional sheet of paper to this form, if necessary.

1. General Prohibitions. The permittee shall not:

a. Discharge, or cause to be discharged to a POTW, any substances, materials, or wastewater that may:

i. harm the sewers, POTW wastewater treatment process or equipment;
ii. have an adverse impact on the receiving waters; or
iii. otherwise create a nuisance or endanger public health, safety, or the environment.

b. Introduce pollutants into POTWs that pass through the POTW or interfere with its operation or performance.

c. Discharge wastewater or allow discharge of wastewater through any sewer connection that would result in a hazard to the public health or safety.

d. Discharge bypass wastewater or allow discharge of bypass wastewater through any sewer connection. If bypassing due to an emergency condition occurs, the Department and POTW shall be notified in accordance with 314 CMR 7.04(3). Such notification or its acknowledgement shall not be construed as permission by the Department or POTW to discharge bypass wastewater.

e. Discharge hazardous waste or allow the discharge of hazardous waste through any sewer connection.

2. Specific Prohibitions. The permittee shall not introduce into a POTW or its wastewater collection system the following:

a. Pollutants which may create a fire, explosion, or other hazard in the POTW or its wastewater collection system.

b. Pollutants which may cause corrosive structural damage to the POTW or its wastewater collection system. In no case shall discharges with a pH lower than 5.0 Standard Unit (S.U) or more than 10.0 S.U. be allowed, unless the local limit allows such discharges.

c. Solid or viscous pollutants in amounts which may cause obstruction to the flow in the POTW or its wastewater collection system or may result in interference.

d. Any pollutant, including oxygen-demanding pollutants, discharged at a flow rate or pollutant concentration that will cause interference with the POTW or its wastewater collection system.

e. Heat in amounts which may inhibit biological activity in the POTW, resulting in interference. In no case shall heat in such quantities that the temperature at the POTW treatment plant exceeds 40º C (104º F) be discharged, unless the Department, upon request of the POTW, approves alternate temperature limits.

F. Additional Conditions

a. All discharges shall be in compliance with the terms and conditions of this permit. The discharge of any wastewater at a level in excess of that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Such a violation may result in the imposition of civil and/or criminal penalties as provided for in M.G.L. c.21, Section 42.

b. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

i. Violation of any terms or conditions of the permit;

ii. Obtaining a permit by misrepresentation or failure to disclose fully all relevant facts; or

iii. A change in conditions or the existence of a condition, which requires either a temporary or permanent reduction, or elimination of the authorized discharge.

c. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges; nor does it authorize or relieve the permittee of any liability for any injury to private property or any invasion of personal rights; nor any infringement of Federal, State, or local laws or regulations; nor does it waive the necessity of obtaining any local assent required by law for the discharge authorized herein by the Department.

d. The provisions of this permit are severable, and the invalidity of any condition or subdivision thereof shall not make void any other condition or subdivision thereof.

e. All information and data provided by an applicant or a permittee identifying the nature and frequency of a discharge shall be available to the public without restriction. All other information (other than effluent data) which may be submitted by an applicant in connection with a permit application shall also be available to the public unless the applicant or permittee is able to demonstrate that the disclosure of such information or particular part thereof to the general public would divulge methods or processes entitled to protection as trade secrets in accordance with the provisions of M.G.L. c.21, Section.27(7). Where the applicant or permittee is able to so demonstrate, the Department shall treat the information or the particular part (other than effluent data) as confidential and not release it to any unauthorized person. Such information may be divulged to other officers, employees, or authorized representatives of the Commonwealth or the United States Government concerned with the protection of public water or water supplies.

f. Transfer of Permits. Any sewer system connection permit authorizing an industrial discharge to a sewer system is only valid for the person to whom it is issued, unless prior to transfer:

i. The current permittee notifies the Department in writing at least 30 days in advance of the proposed transfer date; and

ii. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibilities, and liability to the new permittee.

g. This permit authorizing the discharge expires five (5) years from the date of issuance. The permittee shall apply for a renewal of this permit at least ninety (90) days prior to the expiration date, in accordance with 314 CMR 7.09(3)(b) for continued lawful discharges beyond the expiration date.

h. All solids, sludge, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be collected, treated, and disposed of in accordance with applicable provisions in the following:

i. Hazardous waste regulations (310 CMR 30.000).

ii. Solid waste regulations (310 CMR 19.00).

iii. Sewer discharge regulations (314 CMR 7.00).

iv. Any other applicable federal, state and local laws.

i. All samples shall be analyzed by a Massachusetts Certified Laboratory.

j. The permittee shall provide the Department, and the Department's employees, authorized representatives and contractors, access at to the facility at all reasonable times, including during wastewater treatment system operation or wastewater discharge, for purposes of conducting activities related to oversight of this permit, including inspections to monitor compliance with the terms herein. The permittee shall allow the Department to obtain information related to compliance with the requirements of this permit. Notwithstanding any provision of this permit, the Department retains all of its access authorities and rights under applicable state and federal law.

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention – Industrial Wastewater

BWP IW 38 & BWP IW 39

Permit for Industrial Sewer User

W201133
Transmittal Number

130595
Facility ID# (if known)

G. Certification Statement

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true accurate, and complete. I certify that this facility is in compliance with all conditions and requirements of this permit, and all applicable statutes and regulations. I further certify that systems to maintain compliance are in place at the facility or unit and will be maintained even if processes or operating procedures are changed. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations."

(I will be responsible for publication of public notice of the applicable permit proceedings identified under 314 CMR 2.06(1)(a) through (d).)

Michael Guidoboni
Printed Name of Applicant

Operations Manager
Title

Signature of Applicant

Date Signed

Paul Richard, EnviroBusiness, Inc.
Name of Preparer

Program Director
Title

(781) 273-2500
Phone Number

MassDEP Use Only

Special Conditions:

This document is a permit issued pursuant to Massachusetts General Laws, Chapter 21, Section 43 and Massachusetts regulations at 314 CMR 7.00. The permittee shall comply with all of the provisions contained in the permit application which are hereby incorporated and made part of this permit.

Date Issued

Permit Effective Date

Permit Expiration Date

Name of Regional BWP Section Chief

Signature

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention – Industrial Wastewater

Additional IWPS Form

Use With BWP IW 38 & BWP IW 39

W201133
Transmittal Number

130595
Facility ID# (if known)

Permit Code

Instructions: Submit a completed copy of this form for each additional Industrial Wastewater Pretreatment System (IWPS) not identified on your BWP IW 38/BWP IW 39 permit application.

Industrial Wastewater Pretreatment System (IWPS) Information

NOTE: Question numbers on this form are identical with those on the BWP IW 38/BWP IW 39 permit application or Industrial Sewer Connection Certification forms. Questions 1 and 1a have been intentionally omitted.

1b. Please provide a unique identifier (i.e. name) for this IWPS:

ATC Pretreatment System - Outfall NS02
Identifier/Name

1c. What is the Total Design Capacity of this IWPS?

4,300
Gallons Per Day

1d. What is the Average Daily Flow of this IPWS? (Estimate if this is a new facility.)

200
Gallons Per Day

1e. What is the Maximum Daily Flow of this IWPS? (Estimate if this is a new facility.)

258
Gallons Per Day

2. Is your IWPS designed and constructed to meet all local discharge standards and the applicable Categorical Industrial User (CIU) standards in 40 CFR Chapter I, Subchapter N?

☒ Yes ☐ No* *If No, you must take immediate steps to address the non-compliance **BEFORE** you can submit this application.

3. Does this IWPS treat hazardous industrial wastewater or hazardous industrial wastewater sludge as defined in 314 CMR 7.02?

☐ Yes ☒ No* *If No, skip to Question 12.

3a. Are you treating concentrated chemical baths, e.g. spent chemical baths, or off-specification products?

☐ Yes ☒ No* *If No, skip to Question 4.

3b. If Yes, describe the concentrated chemical baths you are treating:

IWPS Information (continued)

4. Does your IWPS meet the requirements of "treatment which is an integral part of the manufacturing process" as defined in 310 CMR 30.010?

☒ Yes* ☐ No *If Yes, skip to Question 7.

5.Do you store hazardous industrial wastewater or hazardous industrial wastewater sludge that is generated in your IWPS or in your production processes and stored in tanks or containers?

Note: If you use in-ground tanks for storage of hazardous industrial wastewater or sludge and your IWPS is located in a Drinking Water Zone (see Section 17C of the Instructions; reference language in 310 CMR 30.605), you are not eligible to apply for a BWP IW 38 or BWP IW 39 permit. You must use form BWP IW 40 instead.

☐ Yes ☐ No* *If No, skip to Question 7.

6. Are you in compliance with the requirements for tanks and containers in 310 CMR 30.342 and 343? (See Section 17C in the Instructions)

☐ Yes ☐ No* *If No, you must take immediate steps to address the non-compliance **BEFORE** you can submit this application.

7. Do you have a U.S. Environmental Protection Agency (EPA) hazardous waste generator identification number?

☒ Yes ☐ No* *If No, skip to Question 7b.

7a. What is your EPA identification number?

MAD 000844498 Skip to Question 8.
EPA ID #

7b. Explain why you do not have an EPA identification number.

8. Do you have a visible sign in place that warns against unauthorized entry into the IWPS area?

☒ Yes* ☐ No *If Yes, skip to Question 9.

8a. Explain why you do not have a visible sign in place.

Additional IWPS Information (continued)

9.Do you have the required spill containment for the IWPS? (See Section 17C in the Instructions.)

☒ Yes* ☐ No *If Yes, skip to Question 10.

9a. Explain why you do not have the required spill containment.

10. Is your IWPS located on land subject to flooding from a 100-year storm? (See Section 17C in the Instructions.)

☐ Yes ☒ No* *If No, skip to Question 12.

11. Are you in compliance with the flood-proofing provisions in 310 CMR 30.701(2)? (See Section 17C in the Instructions.)

☐ Yes* ☐ No *If Yes, skip to Question 12.

11a. Explain why you are not in compliance with the flood-proofing provisions in 310 CMR 30.701(2).

12. What type of IWPS do you have? (Check all that apply.)

☐ Fully Automated Industrial Wastewater Pretreatment System (FAIWPS)

☒ Continuous Discharge IWPS ☒ Batch IWPS

13. Is the IWPS exempt from classification? (See Section 17C in the Instructions.)

☐ Yes* ☒ No *If Yes, skip to Question 14.

13a. What is the classification of this IWPS? (See 257 CMR 2.13: Classification of Wastewater Treatment Facilities.)

☐ Class 1I	☒ Class 2I	☐ Class 3I
☐ Class 4I	☐ Class 5 or 6C	☐ Class 1M
☐ Class 2M	☐ Class 3M	☐ Class 4M

Additional IWPS Information (continued)

13b. How was the IWPS' classification determined?

☐ 13b1. In accordance with the requirements in 314 CMR 7.05(2)(g) 4. c. or d.

☒ 13b2. By the Board of Certification of Operators of Wastewater Treatment Facilities

☐ 13b3. Both

14. Is the IWPS staffed in accordance with the requirements of 314 CMR 7.05(2)(g) 5? (See Section 17C in the Instructions.)

☒ Yes* ☐ No *If Yes, skip to Question 15.

14a. Explain why the IWPS is not staffed in accordance with 314 CMR 7.05(2)(g) 5.

15. Is this your first permit application under Permit Category BWP IW 38 or BWP IW 39 for the IWPS? Or, is this application a request for modification of the IWPS that currently has a BWP IW 38 or BWP IW 39 permit?

☒ Yes* ☐ No *If Yes, you need to submit as an attachment the process flow diagram and description of the principal treatment processes for your IWPS.

16. How many attachments are included with this application in response to Question 15?

2: See Attachments D and E
Number of Attachments

17. Have your sewer connection and IWPS been designed and constructed in compliance with the design and construction standards as set forth in 314 CMR 7.05(2)(g)3?

☒ Yes ☐ No* *If No, skip to Question 17b.

17a. What is the Massachusetts Registered Professional Engineer (MAPE) signature date on the engineering plans?

1-4-08
Date

Skip to Question 18.

17b. Explain why your sewer connection and IWPS have not been designed and constructed in compliance with the design and construction standards as set forth in 314 CMR 7.05(2)(g)3.

18. Provide the name of the Massachusetts Registered Professional Engineer (MAPE) who reviewed, stamped, and signed your engineering plans:

Christopher A. Walton	(781) 273-2500
18a. Name	18b. Phone Number
39510	Civil
18c. Mass. P.E. License Number	18d. Mass. P.E. Specialty

19. Do you have an IWPS operation and maintenance manual that complies with the procedures and other requirements in 314 CMR 7.05(2)(g)6.?

☒ Yes* ☐ No *If Yes, skip to Question 20.

19a. Explain why you do not have an IWPS operation and maintenance manual.

20. Are you keeping your IWPS operation and maintenance manual current?

☒ Yes ☐ No

21. Are you implementing your IWPS operation and maintenance plan manual?

☒ Yes ☐ No

- Main Pretreatment Facility
- ATC Pretreatment System

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention – Industrial Wastewater

Toxic Pollutants Form

Use With BWP IW 38 & BWP IW 39

W201133
Transmittal Number

130595 – **Main Pretreat**
Facility ID# (if known)

Permit Code

Instructions: For the following groups of pollutants, check all that you know to be present in your industrial wastewater before pretreatment, and provide concentrations for the specific pollutants in the checked group(s).

☒ **100. Volatiles**

For all Volatile Organic Compounds (VOCs), provide concentrations in micrograms per liter (ug/L):

Pollutant Name	Concentration
101. acrolein	Below Detection Limit (BDL) ug/L
102. acrylonitrile	BDL ug/L
103. benzene	BDL ug/L
104. bis (chloromethyl) ether	BDL ug/L
105. bromoform	BDL ug/L
106. carbon tetrachloride	BDL ug/L
107. chlorobenzene	BDL ug/L
108. chlorodibromomethane	BDL ug/L
109. chloroethane	BDL ug/L
110. 2-chloroethylvinyl ether	BDL ug/L
111. chloroform	BDL ug/L
112. dichlorobromomethane	BDL ug/L
113. dichlorodifluoromethane	BDL ug/L
114. 1,1-dichloroethane	BDL ug/L
115. 1,2-dichloroethane	BDL ug/L
116. 1,1-dichloroethylene	BDL ug/L
117. 1,2-dichloropropane	BDL ug/L
118. 1,2-dichloropropylene	BDL ug/L
119. ethylbenzene	BDL ug/L
120. methyl bromide	BDL ug/L
121. methyl chloride	BDL ug/L

100. Volatiles (continued)

Pollutant Name	Concentration
122. methylene chloride	BDL ug/L
123. 1,1,2,2-tetrachloroethane	BDL ug/L
124. tetrachloroethylene	BDL ug/L
125. toluene	BDL ug/L
126. 1,2-trans-dichloroethylene	BDL ug/L
127. 1,1,1-trichloroethane	BDL ug/L
128. 1,1,2-trichloroethane	BDL ug/L
129. trichloroethylene	BDL ug/L
130. trichlorofluoromethane	BDL ug/L
131. vinyl chloride	BDL ug/L

☒ **200. Acid Compounds**

For all Acid Compounds, provide concentrations in micrograms per liter (ug/L):

Pollutant Name	Concentration
201. 2-chlorophenol	BDL ug/L
202. 2,4-dichlorophenol	BDL ug/L
203. 2,4-dimethylphenol	BDL ug/L
204. 4,6-dinitro-o-cresol	BDL ug/L
205. 2,4-dinitrophenol	BDL ug/L
206. 2-nitrophenol	BDL ug/L
207. 4-nitrophenol	BDL ug/L
208. p-chloro-m-cresol	BDL ug/L
209. pentachlorophenol	BDL ug/L
210. phenol	BDL ug/L
211. 2,4,6-trichlorophenol	BDL ug/L

☒ **300. Base/Neutral Compounds**

For all Base/Neutral Compounds, provide concentrations in micrograms per liter (ug/L):

Pollutant Name	Concentration
301. acenaphthene	BDL ug/L
302. acenaphthylene	BDL ug/L
303. anthracene	BDL ug/L
304. benzidine	BDL ug/L
305. benzo(a)anthracene	BDL ug/L
306. benzo(a)pyrene	BDL ug/L
307. 3,4-benzofluoranthene	BDL ug/L
308. benzo(ghi)perylene	BDL ug/L
309. benzo(k)fluoranthene	BDL ug/L
310. bis(2-chloroethoxy)methane	BDL ug/L
311. bis(2-chloroethyl)ether	BDL ug/L
312. bis(2-chloroisopropyl)ether	BDL ug/L
313. bis(2-ethylhexyl)phthalate	BDL ug/L
314. 4-bromophenyl phenyl ether	BDL ug/L
315. butylbenzyl phthalate	BDL ug/L
316. 2-chloronaphthalene	BDL ug/L
317. 4-chlorophenyl phenyl ether	BDL ug/L
318. chrysene	BDL ug/L
319. dibenzo(a,h)anthracene	BDL ug/L
320. 1,2-dichlorobenzene	BDL ug/L
321. 1,3-dichlorobenzene	BDL ug/L
322. 1,4-dichlorobenzene	BDL ug/L
323. 3,3'-dichlorobenzidine	BDL ug/L

300. Base/Neutral Compounds (continued)

Pollutant Name	Concentration
324. diethyl phthalate	BDL ug/L
325. dimethyl phthalate	BDL ug/L
326. di-n-butyl phthalate	BDL ug/L
327. 2,4-dinitrotoluene	BDL ug/L
328. 2,6-dinitrotoluene	BDL ug/L
329. di-n-octyl phthalate	BDL ug/L
330. 1,2-diphenylhydrazine (as azobenzene)	BDL ug/L
331. fluoranthene	BDL ug/L
332. fluorine	BDL ug/L
333. hexachlorobenzene	BDL ug/L
334. hexachlorobutadiene	BDL ug/L
335. hexachlorocyclopentadiene	BDL ug/L
336. hexachloroethane	BDL ug/L
337. indeno(1,2,3-cd)pyrene	BDL ug/L
338. isophorone	BDL ug/L
339. naphthalene	BDL ug/L
340. nitrobenzene	BDL ug/L
341. N-nitrosodimethylamine	BDL ug/L
342. N-nitrosodi-n-propylamine	BDL ug/L
343. N-nitrosodiphenylamine	BDL ug/L
344. phenanthrene	BDL ug/L
345. pyrene	BDL ug/L
346. 1,2,4-trichlorobenzene	BDL ug/L

☒ **400. Pesticides**

For all Pesticides, provide concentrations in micrograms per liter (ug/L):

Pollutant Name	Concentration
401. aldrin	0.111 ug/L
402. alpha-BHC	BDL ug/L
403. beta-BHC	BDL ug/L
404. gamma-BHC	BDL ug/L
405. delta-BHC	BDL ug/L
406. chlordane	BDL ug/L
407. 4,4'-DDT	BDL ug/L
408. 4,4'-DDE	BDL ug/L
409. 4,4'-DDD	BDL ug/L
410. dieldrin	BDL ug/L
411. alpha-endosulfan	BDL ug/L
412. beta-endosulfan	BDL ug/L
413. endosulfan sulfate	BDL ug/L
414. endrin	BDL ug/L
415. endrin aldehyde	BDL ug/L
416. heptachlor	BDL ug/L
417. heptachlor epoxide	BDL ug/L
418. PCB-1242	BDL ug/L
419. PCB-1254	BDL ug/L
420. PCB-1221	BDL ug/L
421. PCB-1232	BDL ug/L
422. PCB-1248	BDL ug/L
423. PCB-1260	BDL ug/L

400. Pesticides

Pollutant Name	Concentration
424. PCB-1016	BDL ug/L
425. toxaphene	BDL ug/L

500. Total Toxic Pollutants*	0.111 [1] ug/L

*Use this total in your answer to Question 6b in Section B of the BWP IW 38 & BWP IW 39 Permit for Industrial Sewer User application

[**1] Sampling data from combined outfall S01 and CO1 (Refer to Attachment A)**

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention – Industrial Wastewater

Toxic Pollutants Form

Use With BWP IW 38 & BWP IW 39

W201133
Transmittal Number

130595 – **ATC Pretreat**
Facility ID# (if known)

Permit Code

Instructions: For the following groups of pollutants, check all that you know to be present in your industrial wastewater before pretreatment, and provide concentrations for the specific pollutants in the checked group(s).

☒ **100. Volatiles**

For all Volatile Organic Compounds (VOCs), provide concentrations in micrograms per liter (ug/L):

Pollutant Name	Concentration
101. acrolein	Below Detection Limit (BDL) ug/L
102. acrylonitrile	BDL ug/L
103. benzene	BDL ug/L
104. bis (chloromethyl) ether	BDL ug/L
105. bromoform	2.5 ug/L
106. carbon tetrachloride	BDL ug/L
107. chlorobenzene	BDL ug/L
108. chlorodibromomethane	4.6 ug/L
109. chloroethane	BDL ug/L
110. 2-chloroethylvinyl ether	BDL ug/L
111. chloroform	3.8 ug/L
112. dichlorobromomethane	5.6 ug/L
113. dichlorodifluoromethane	BDL ug/L
114. 1,1-dichloroethane	BDL ug/L
115. 1,2-dichloroethane	BDL ug/L
116. 1,1-dichloroethylene	BDL ug/L
117. 1,2-dichloropropane	BDL ug/L
118. 1,2-dichloropropylene	BDL ug/L
119. ethylbenzene	BDL ug/L
120. methyl bromide	BDL ug/L
121. methyl chloride	BDL ug/L

100. Volatiles (continued)

Pollutant Name	Concentration
122. methylene chloride	BDL ug/L
123. 1,1,2,2-tetrachloroethane	BDL ug/L
124. tetrachloroethylene	BDL ug/L
125. toluene	BDL ug/L
126. 1,2-trans-dichloroethylene	BDL ug/L
127. 1,1,1-trichloroethane	BDL ug/L
128. 1,1,2-trichloroethane	BDL ug/L
129. trichloroethylene	BDL ug/L
130. trichlorofluoromethane	BDL ug/L
131. vinyl chloride	BDL ug/L

☒ **200. Acid Compounds**

For all Acid Compounds, provide concentrations in micrograms per liter (ug/L):

Pollutant Name	Concentration
201. 2-chlorophenol	BDL ug/L
202. 2,4-dichlorophenol	BDL ug/L
203. 2,4-dimethylphenol	BDL ug/L
204. 4,6-dinitro-o-cresol	BDL ug/L
205. 2,4-dinitrophenol	BDL ug/L
206. 2-nitrophenol	BDL ug/L
207. 4-nitrophenol	BDL ug/L
208. p-chloro-m-cresol	BDL ug/L
209. pentachlorophenol	BDL ug/L
210. phenol	BDL ug/L
211. 2,4,6-trichlorophenol	BDL ug/L

☒ **300. Base/Neutral Compounds**

For all Base/Neutral Compounds, provide concentrations in micrograms per liter (ug/L):

Pollutant Name	Concentration
301. acenaphthene	BDL ug/L
302. acenaphthylene	BDL ug/L
303. anthracene	BDL ug/L
304. benzidine	BDL ug/L
305. benzo(a)anthracene	BDL ug/L
306. benzo(a)pyrene	BDL ug/L
307. 3,4-benzofluoranthene	BDL ug/L
308. benzo(ghi)perylene	BDL ug/L
309. benzo(k)fluoranthene	BDL ug/L
310. bis(2-chloroethoxy)methane	BDL ug/L
311. bis(2-chloroethyl)ether	BDL ug/L
312. bis(2-chloroisopropyl)ether	BDL ug/L
313. bis(2-ethylhexyl)phthalate	BDL ug/L
314. 4-bromophenyl phenyl ether	BDL ug/L
315. butylbenzyl phthalate	BDL ug/L
316. 2-chloronaphthalene	BDL ug/L
317. 4-chlorophenyl phenyl ether	BDL ug/L
318. chrysene	BDL ug/L
319. dibenzo(a,h)anthracene	BDL ug/L
320. 1,2-dichlorobenzene	BDL ug/L
321. 1,3-dichlorobenzene	BDL ug/L
322. 1,4-dichlorobenzene	BDL ug/L
323. 3,3'-dichlorobenzidine	BDL ug/L

300. Base/Neutral Compounds (continued)

Pollutant Name	Concentration
324. diethyl phthalate	BDL ug/L
325. dimethyl phthalate	BDL ug/L
326. di-n-butyl phthalate	BDL ug/L
327. 2,4-dinitrotoluene	BDL ug/L
328. 2,6-dinitrotoluene	BDL ug/L
329. di-n-octyl phthalate	BDL ug/L
330. 1,2-diphenylhydrazine (as azobenzene)	BDL ug/L
331. fluoranthene	BDL ug/L
332. fluorine	BDL ug/L
333. hexachlorobenzene	BDL ug/L
334. hexachlorobutadiene	BDL ug/L
335. hexachlorocyclopentadiene	BDL ug/L
336. hexachloroethane	BDL ug/L
337. indeno(1,2,3-cd)pyrene	BDL ug/L
338. isophorone	BDL ug/L
339. naphthalene	BDL ug/L
340. nitrobenzene	BDL ug/L
341. N-nitrosodimethylamine	BDL ug/L
342. N-nitrosodi-n-propylamine	BDL ug/L
343. N-nitrosodiphenylamine	BDL ug/L
344. phenanthrene	BDL ug/L
345. pyrene	BDL ug/L
346. 1,2,4-trichlorobenzene	BDL ug/L

☒ **400. Pesticides**

For all Pesticides, provide concentrations in micrograms per liter (ug/L):

Pollutant Name	Concentration
401. aldrin	BDL ug/L
402. alpha-BHC	BDL ug/L
403. beta-BHC	BDL ug/L
404. gamma-BHC	BDL ug/L
405. delta-BHC	BDL ug/L
406. chlordane	BDL ug/L
407. 4,4'-DDT	BDL ug/L
408. 4,4'-DDE	BDL ug/L
409. 4,4'-DDD	BDL ug/L
410. dieldrin	BDL ug/L
411. alpha-endosulfan	BDL ug/L
412. beta-endosulfan	BDL ug/L
413. endosulfan sulfate	BDL ug/L
414. endrin	BDL ug/L
415. endrin aldehyde	BDL ug/L
416. heptachlor	BDL ug/L
417. heptachlor epoxide	BDL ug/L
418. PCB-1242	BDL ug/L
419. PCB-1254	BDL ug/L
420. PCB-1221	BDL ug/L
421. PCB-1232	BDL ug/L
422. PCB-1248	BDL ug/L
423. PCB-1260	BDL ug/L

400. Pesticides

Pollutant Name	Concentration
424. PCB-1016	BDL ug/L
425. toxaphene	BDL ug/L

500. Total Toxic Pollutants*	16.5 [1] ug/L

*Use this total in your answer to Question 6b in Section B of the BWP IW 38 & BWP IW 39 Permit for Industrial Sewer User application

[1] Sampling data from outfall NS02 following pretreatment (Refer to Attachment A)

Attachment A

Wastewater Sampling Results

- Main Pretreatment Facility
- ATC Pretreatment System

1. MAIN PRETREATMENT FACILITY SAMPLING DATA

S01 Combined Discharge

C01 Discharge from Main Pretreatment Facility

- C01A Main Process Tank
- C01B Concentrated Copper/Nickel Rinses
- C01C Concentrated Tin Rinses

2 ATC PRETREATMENT SYSTEM SAMPLING DATA

NS02 Discharge from ATC Pretreatment System

C02 ATC Industrial Wastewater

Outfall S01
Combined Discharge (Main Pretreatment System Effluent and Sanitary Wastewater)
2007 Wastewater Sampling Results

Parameter	Units	POTW Discharge Limitation	Sample Type	Sampling Frequency	1stQ 2007	2ndQ 2007	3rdQ 2007	4thQ 2007
Metals, Cyanide and Phenols								
Aluminum	mg/L	no limit	composite	quarterly	0.31	0.12	0.11	ND
Antimony	mg/L	no limit	composite	quarterly	ND	ND	ND	ND
Arsenic	mg/L	0.42	composite	quarterly	ND	ND	ND	ND
Beryllium	mg/L	0.12	composite	quarterly	ND	ND	ND	ND
Cadmium	mg/L	0.10	composite	quarterly	ND	ND	ND	ND
Chromium	mg/L	0.77	composite	quarterly	ND	ND	ND	ND
Copper	mg/L	0.30	composite	quarterly	0.096	0.039	0.047	0.057
Lead	mg/L	0.10	composite	quarterly	ND	ND	ND	ND
Mercury	mg/L	0.0007	composite	quarterly	ND	ND	ND	ND
Nickel	mg/L	0.60	composite	quarterly	ND	ND	ND	ND
Selenium	mg/L	0.81	composite	quarterly	ND	ND	ND	ND
Silver	mg/L	0.25	composite	quarterly	ND	ND	ND	ND
Thallium	mg/L	0.93	composite	quarterly	ND	ND	ND	ND
Zinc	mg/L	3.70	composite	quarterly	0.092	ND	ND	0.056
Cyanide	mg/L	0.45	grab	quarterly	ND	ND	ND	ND
Phenols, Total	mg/L	no limit	grab	quarterly	0.20	ND	0.05	ND
Toxic Pollutants								
TTO (624&625)	µg/L	2,130			370.1			
EPA 624 (volatiles)	µg/L	see TTO limit	grab	annually	370[1]			
EPA 625 (SVOCs)	µg/L	see TTO limit	composite	annually	0.111 [2]			
Oil & Grease and pH								
Oil & Grease	mg/L	100	grab	quarterly	40	17	16	13
pH	su	6.0 - 9.0	cont.	cont.	6-9	6-9	6-9	6-9
Other Pollutants								
TSS	mg/L	350	composite	quarterly	53	32	32	34
Nitrogen, Ammonia	mg/L	50	composite	quarterly	30.1	24.6	18.3	14.6
Phosphorus, Total	mg/L	25	composite	quarterly	21	3.7	3.0	2.1
COD	mg/L	no limit	composite	quarterly	300	210	260	160
BOD_5	mg/L	350	composite	quarterly	220	260	240	150

Notes:
ND = Not Detected
[1] Acetone
[2] Aldrin

Internall Outfall C01
Main Pretreatment Facility
Wastewater Sampling Results

Parameter	Units	Sample Type	Number of Samples	Maximum Concentration	Average Concentration	Sample Dates
Metals, Cyanide and Phenols						
Copper	mg/L	grab	7	0.05	0.04	9/4-10/31/2007
Nickel	mg/L	grab	7	0.08	0.04	9/4-10/31/2007
Lead	mg/L	grab	7	0.02	0.01	9/4-10/31/2007
Antimony	mg/L	composite	1	ND		12/18/2007
Arsenic	mg/L	composite	1	ND		12/18/2007
Berylium	mg/L	composite	1	ND		12/18/2007
Cadmium	mg/L	composite	1	ND		12/18/2007
Chromium	mg/L	composite	1	ND		12/18/2007
Mercury	mg/L	composite	1	ND		12/18/2007
Selenium	mg/L	composite	1	ND		12/18/2007
Silver	mg/L	composite	1	ND		12/18/2007
Thallium	mg/L	composite	1	ND		12/18/2007
Zinc	mg/L	composite	1	ND		12/18/2007
Cyanide	mg/L	grab	1	0.039		12/18/2007
Toxic Pollutants						
TTO (624&625)	µg/L			270		
EPA 624 (volatiles)	µg/L	grab	1	270 [1]		12/18/2007
EPA 625 (SVOCs)	µg/L	grab	1	ND		12/18/2007
Other Pollutants						
TSS	mg/L	composite	1	12		12/18/2007
BOD_5	mg/L	composite	12	380	188	3/30-11/12/2007
Phosphorus	mg/L	composite	91	5.0	1.6	2/5 - 12/10/2007

Notes:
ND = Not Detected
[1] Acetone

Internall Outfall C01A
Main Pretreatment Facility
Main Process Tank
Wastewater Sampling Results

Parameter	Units	Sample Type	Number of Samples	Maximum Concentration	Average Concentration	Sample Dates
Copper	mg/L	grab	40	13.63	3.17	11/1-11/30/2007
Nickel	mg/L	grab	40	2.86	0.50	11/1-11/30/2007
Lead	mg/L	grab	40	0.16	0.02	11/1-11/30/2007

Internall Outfall C01B
Main Pretreatment Facility
Concentrated Copper/Nickel Rinses
2007 Wastewater Sampling Results

Parameter	Units	Sample Type	Number of Samples	Maximum Concentration	Average Concentration	Sample Dates
Formaldehyde	mg/L	grab	3	5,900	2,309	10/5 - 12/12/2007
Copper	mg/L	estimate			50-1000	
Nickel	mg/L	estimate			50-1000	

Internall Outfall C01C
Main Pretreatment Facility
Concentrated Tin Rinses
2007 Wastewater Sampling Results

Parameter	Units	Sample Type	Number of Samples	Maximum Concentration	Average Concentration	Sample Dates
Thiourea	mg/L	grab	3	182	176	12/6/07, 12/7/07, 12/11/07

Outfall NS02
Advanced Technology Center - Fab 4 (ATC) Building
2007 Wastewater Sampling Results

Parameter	Units	POTW Discharge Limitation	Sample Type	Sampling Frequency	January-June 2007	July-December 2007
Metals, Cyanide and Phenols						
Antimony	mg/L	no limit	composite	semiannual	ND	ND
Arsenic	mg/L	0.42	composite	semiannual	ND	ND
Beryllium	mg/L	0.12	composite	semiannual	ND	ND
Cadmium	mg/L	0.02	composite	semiannual	ND	ND
Chromium	mg/L	0.77	composite	semiannual	ND	ND
Copper	mg/L	0.3	composite	semiannual	0.014	0.025
Lead	mg/L	0.08	composite	semiannual	ND	ND
Mercury	mg/L	0.0007	composite	semiannual	ND	ND
Nickel	mg/L	0.37	composite	semiannual	ND	ND
Selenium	mg/L	0.81	composite	semiannual	ND	ND
Silver	mg/L	0.01	composite	semiannual	ND	ND
Thallium	mg/L	0.93	composite	semiannual	ND	ND
Zinc	mg/L	0.5	composite	semiannual	ND	ND
Cyanide	mg/L	0.23	grab	semiannual	ND	ND
Phenols, Total	mg/L	no limit	grab	semiannual	ND	ND
Toxic Pollutants						
TTO (624&625)	µg/L	2,130			32.5	ND
EPA 624 (volatiles)	µg/L	see TTO limit	grab	semiannual	32.5 [1]	ND
EPA 625 (SVOCs)	µg/L	see TTO limit	composite	semiannual	ND	ND
Oil & Grease and pH						
Oil & Grease	mg/L	100	grab	semiannual	< 4.4	< 4
pH	su	6.0 - 9.0	cont.	cont.	6-9	6-9
Other Pollutants						
TSS	mg/L	no limit	composite	semiannual	< 5	< 5
Nitrogen, Ammonia	mg/L	no limit	composite	semiannual	1.42	1.40
Phosphorus, Total	mg/L	no limit	composite	semiannual	0.02	0.13
COD	mg/L	no limit	composite	semiannual	250	85
BOD_5	mg/L	no limit	composite	semiannual	< 10	78

Notes:
ND = Not Detected
[1] Acetone = 16 mg/L

Internall Outfall C02
Advanced Technology Center - Fab 4 (ATC) Building
ATC Industrial Wastewater

Parameter	Units	Sample Type	Number of Samples	Maximum Concentration	Average Concentration	Sample Dates
Copper	mg/L	composite	1	0.160	n/a	5/6/2005
Nickel	mg/L	composite	1	0.143	n/a	5/6/2005

ALPHA ANALYTICAL LABORATORIES

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(508) 898-9220 www.alphalab.com

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Rohm & Haas

Address: 455 Forest Street

Marlboro, MA 01752

Attn: Mr. Keith LeMaire

Project Number:

Site: QUARTERLY & ANNUAL

Laboratory Job Number: L0700711

Date Received: 16-JAN-2007

Date Reported: 16-FEB-2007

Delivery Method: Client

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0700711-01	A-H COMPOSITE	S01 OUTFALL
L0700711-02	I-N GRAB	S01 OUTFALL

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: _____
Technical Director

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0700711

Report Submission

This report replaces the report issued February 1, 2007. At the client's request, the result for Total Aluminum has been added to L0700711-01.

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0700711-01
A-H COMPOSITE
Sample Matrix: WATER

Date Collected: 16-JAN-2007 08:30
Date Received : 16-JAN-2007
Date Reported : 16-FEB-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 4-Amber,4-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total Suspended	53	mg/l	5.0	4 160.2		0119 14:30	DW
Nitrogen, Ammonia	30.1	mg/l	0.375	44 350.1	0125 16:00	0126 11:24	AT
Phosphorus, Total	21	mg/l	0.25	4 365.2		0122 15:00	HS
Chemical Oxygen Demand	300	mg/l	20	44 410.4		0122 10:15	DW
BOD, 5 day	220	mg/l	50	4 405.1	0117 07:30	0122 12:10	DW
Total Metals				19 200.7			
Aluminum, Total	0.31	mg/l	0.10	19 200.7	0118 17:00	0123 09:57	MG
Antimony, Total	ND	mg/l	0.050	19 200.7	0118 17:00	0123 09:57	MG
Arsenic, Total	ND	mg/l	0.005	19 200.7	0118 17:00	0123 09:57	MG
Beryllium, Total	ND	mg/l	0.005	19 200.7	0118 17:00	0123 09:57	MG
Cadmium, Total	ND	mg/l	0.005	19 200.7	0118 17:00	0123 09:57	MG
Chromium, Total	ND	mg/l	0.01	19 200.7	0118 17:00	0123 09:57	MG
Copper, Total	0.096	mg/l	0.010	19 200.7	0118 17:00	0123 09:57	MG
Lead, Total	ND	mg/l	0.010	19 200.7	0118 17:00	0123 09:57	MG
Mercury, Total	ND	mg/l	0.0002	4 245.2	0125 17:00	0126 10:33	DM
Nickel, Total	ND	mg/l	0.025	19 200.7	0118 17:00	0123 09:57	MG
Selenium, Total	ND	mg/l	0.010	19 200.7	0118 17:00	0123 09:57	MG
Silver, Total	ND	mg/l	0.007	19 200.7	0118 17:00	0123 09:57	MG
Thallium, Total	ND	mg/l	0.020	19 200.7	0118 17:00	0123 09:57	MG
Zinc, Total	0.092	mg/l	0.050	19 200.7	0118 17:00	0123 09:57	MG
SVOC's by GC/MS 625				5 625	0118 10:05	0120 15:28	RL
Acenaphthene	ND	ug/l	25.				
Benzidine	ND	ug/l	250				
1,2,4-Trichlorobenzene	ND	ug/l	25.				
Hexachlorobenzene	ND	ug/l	25.				
Bis(2-chloroethyl)ether	ND	ug/l	25.				
2-Chloronaphthalene	ND	ug/l	30.				
1,2-Dichlorobenzene	ND	ug/l	25.				
1,3-Dichlorobenzene	ND	ug/l	25.				
1,4-Dichlorobenzene	ND	ug/l	25.				
3,3'-Dichlorobenzidine	ND	ug/l	250				
2,4-Dinitrotoluene	ND	ug/l	30.				

Comments: Complete list of References and Glossary of Terms found in Addendum I

Laboratory Sample Number: L0700711-01
A-H COMPOSITE

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
SVOC's by GC/MS 625 cont'd				5	625	0118 10:05	0120 15:28	RL
2,6-Dinitrotoluene	ND	ug/l	25.					
Azobenzene	ND	ug/l	25.					
Fluoranthene	ND	ug/l	25.					
4-Chlorophenyl phenyl ether	ND	ug/l	25.					
4-Bromophenyl phenyl ether	ND	ug/l	25.					
Bis(2-chloroisopropyl)ether	ND	ug/l	25.					
Bis(2-chloroethoxy)methane	ND	ug/l	25.					
Hexachlorobutadiene	ND	ug/l	50.					
Hexachlorocyclopentadiene	ND	ug/l	150					
Hexachloroethane	ND	ug/l	25.					
Isophorone	ND	ug/l	25.					
Naphthalene	ND	ug/l	25.					
Nitrobenzene	ND	ug/l	25.					
NDPA/DPA	ND	ug/l	75.					
n-Nitrosodi-n-propylamine	ND	ug/l	25.					
Bis(2-ethylhexyl)phthalate	ND	ug/l	25.					
Butyl benzyl phthalate	ND	ug/l	25.					
Di-n-butylphthalate	ND	ug/l	25.					
Di-n-octylphthalate	ND	ug/l	25.					
Diethyl phthalate	ND	ug/l	25.					
Dimethyl phthalate	ND	ug/l	25.					
Benzo(a)anthracene	ND	ug/l	25.					
Benzo(a)pyrene	ND	ug/l	25.					
Benzo(b)fluoranthene	ND	ug/l	25.					
Benzo(k)fluoranthene	ND	ug/l	25.					
Chrysene	ND	ug/l	25.					
Acenaphthylene	ND	ug/l	25.					
Anthracene	ND	ug/l	25.					
Benzo(ghi)perylene	ND	ug/l	25.					
Fluorene	ND	ug/l	25.					
Phenanthrene	ND	ug/l	25.					
Dibenzo(a,h)anthracene	ND	ug/l	25.					
Indeno(1,2,3-cd)pyrene	ND	ug/l	35.					
Pyrene	ND	ug/l	25.					
Aniline	ND	ug/l	100					
4-Chloroaniline	ND	ug/l	25.					
1-Methylnaphthalene	ND	ug/l	25.					
2-Nitroaniline	ND	ug/l	25.					
3-Nitroaniline	ND	ug/l	25.					
4-Nitroaniline	ND	ug/l	35.					
Dibenzofuran	ND	ug/l	25.					
2-Methylnaphthalene	ND	ug/l	25.					
n-Nitrosodimethylamine	ND	ug/l	250					
2,4,6-Trichlorophenol	ND	ug/l	25.					
p-Chloro-m-cresol	ND	ug/l	25.					
2-Chlorophenol	ND	ug/l	30.					
2,4-Dichlorophenol	ND	ug/l	50.					
2,4-Dimethylphenol	ND	ug/l	50.					
2-Nitrophenol	ND	ug/l	100					

Comments: Complete list of References and Glossary of Terms found in Addendum I

Laboratory Sample Number: L0700711-01
A-H COMPOSITE

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
SVOC's by GC/MS 625 cont'd				5	625	0118 10:05	0120 15:28	RL
4-Nitrophenol	ND	ug/l	50.					
2,4-Dinitrophenol	ND	ug/l	150					
4,6-Dinitro-o-cresol	ND	ug/l	100					
Pentachlorophenol	ND	ug/l	50.					
Phenol	ND	ug/l	35.					
2-Methylphenol	ND	ug/l	30.					
3-Methylphenol/4-Methylphenol	ND	ug/l	30.					
2,4,5-Trichlorophenol	ND	ug/l	25.					
2,6-Dichlorophenol	ND	ug/l	50.					
Benzoic Acid	ND	ug/l	250					
Benzyl Alcohol	ND	ug/l	50.					
Carbazole	ND	ug/l	25.					
Surrogate(s)	Recovery		QC Criteria					
2-Fluorophenol	49.0	%	21-120					
Phenol-d6	40.0	%	10-120					
Nitrobenzene-d5	82.0	%	23-120					
2-Fluorobiphenyl	79.0	%	43-120					
2,4,6-Tribromophenol	88.0	%	10-120					
4-Terphenyl-d14	88.0	%	33-120					
PCB/Pesticides				5	608	0123 14:05	0131 03:20	AK
Delta-BHC	ND	ug/l	0.022					
Lindane	ND	ug/l	0.022					
Alpha-BHC	ND	ug/l	0.022					
Beta-BHC	ND	ug/l	0.022					
Heptachlor	ND	ug/l	0.022					
Aldrin	0.111	ug/l	0.022					
Heptachlor epoxide	ND	ug/l	0.022					
Endrin	ND	ug/l	0.044					
Endrin aldehyde	ND	ug/l	0.044					
Endrin ketone	ND	ug/l	0.044					
Dieldrin	ND	ug/l	0.044					
4,4'-DDE	ND	ug/l	0.044					
4,4'-DDD	ND	ug/l	0.044					
4,4'-DDT	ND	ug/l	0.044					
Endosulfan I	ND	ug/l	0.022					
Endosulfan II	ND	ug/l	0.044					
Endosulfan sulfate	ND	ug/l	0.044					
Methoxychlor	ND	ug/l	0.222					
Toxaphene	ND	ug/l	0.222					
Chlordane	ND	ug/l	0.222					
cis-Chlordane	ND	ug/l	0.022					
trans-Chlordane	ND	ug/l	0.022					
Aroclor 1016	ND	ug/l	0.278					
Aroclor 1221	ND	ug/l	0.278					
Aroclor 1232	ND	ug/l	0.278					
Aroclor 1242	ND	ug/l	0.278					
Aroclor 1248	ND	ug/l	0.278					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0700711-01
A-H COMPOSITE

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
PCB/Pesticides cont'd				5	608	0123 14:05	0131 03:20	AK
Aroclor 1254	ND	ug/l	0.278					
Aroclor 1260	ND	ug/l	0.278					
Surrogate(s)	Recovery		QC Criteria					
2,4,5,6-Tetrachloro-m-xylene	54.0	%	30-150					
Decachlorobiphenyl	60.0	%	30-150					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0700711-02 I-N GRAB
Sample Matrix: WATER
Date Collected: 16-JAN-2007 08:30
Date Received : 16-JAN-2007
Date Reported : 16-FEB-2007

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 3-Amber,1-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Cyanide, Total	ND	mg/l	0.005	4	335.2	0126 16:30	0130 13:20	DD
Oil & Grease, Hem-Grav	40	mg/l	4.4	74	1664A	0125 13:30	0129 06:45	AT
Phenolics, Total	0.20	mg/l	0.03	4	420.1		0129 09:00	AT
Volatile Organics by GC/MS 624				5	624		0117 12:41	MM
Methylene chloride	ND	ug/l	5.0					
1,1-Dichloroethane	ND	ug/l	1.5					
Chloroform	ND	ug/l	1.5					
Carbon tetrachloride	ND	ug/l	1.0					
1,2-Dichloropropane	ND	ug/l	3.5					
Dibromochloromethane	ND	ug/l	1.0					
1,1,2-Trichloroethane	ND	ug/l	1.5					
2-Chloroethylvinyl ether	ND	ug/l	10.					
Tetrachloroethene	ND	ug/l	1.5					
Chlorobenzene	ND	ug/l	3.5					
Trichlorofluoromethane	ND	ug/l	5.0					
1,2-Dichloroethane	ND	ug/l	1.5					
1,1,1-Trichloroethane	ND	ug/l	2.0					
Bromodichloromethane	ND	ug/l	1.0					
trans-1,3-Dichloropropene	ND	ug/l	1.5					
cis-1,3-Dichloropropene	ND	ug/l	1.5					
Bromoform	ND	ug/l	1.0					
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0					
Benzene	ND	ug/l	1.0					
Toluene	ND	ug/l	1.0					
Ethylbenzene	ND	ug/l	1.0					
Chloromethane	ND	ug/l	10.					
Bromomethane	ND	ug/l	5.0					
Vinyl chloride	ND	ug/l	2.0					
Chloroethane	ND	ug/l	2.0					
1,1-Dichloroethene	ND	ug/l	1.0					
trans-1,2-Dichloroethene	ND	ug/l	1.5					
cis-1,2-Dichloroethene	ND	ug/l	1.0					
Trichloroethene	ND	ug/l	1.0					
1,2-Dichlorobenzene	ND	ug/l	5.0					
1,3-Dichlorobenzene	ND	ug/l	5.0					
1,4-Dichlorobenzene	ND	ug/l	5.0					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0700711-02
I-N GRAB

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 624 cont'd				5 624		0117 12:41	MM
p/m-Xylene	ND	ug/l	2.0				
o-xylene	ND	ug/l	1.0				
Xylene (Total)	ND	ug/l	2.0				
Styrene	ND	ug/l	1.0				
Acetone	370	ug/l	10				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	10.				
Vinyl acetate	ND	ug/l	20.				
4-Methyl-2-pentanone	ND	ug/l	10.				
2-Hexanone	ND	ug/l	10.				
Acrolein	ND	ug/l	8.0				
Acrylonitrile	ND	ug/l	10.				
Surrogate(s)	Recovery		QC Criteria				
Pentafluorobenzene	102	%	80-120				
Fluorobenzene	102	%	80-120				
4-Bromofluorobenzene	110	%	80-120				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0700711

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total Suspended for sample(s) 01 (L0700790-01, WG268036-2)					
Solids, Total Suspended	ND	ND	mg/l	NC	20
Cyanide, Total for sample(s) 02 (L0701282-01, WG268764-4)					
Cyanide, Total	ND	ND	mg/l	NC	30
Nitrogen, Ammonia for sample(s) 01 (L0701095-01, WG268660-4)					
Nitrogen, Ammonia	10.5	10.8	mg/l	3	
Phosphorus, Total for sample(s) 01 (L0700976-04, WG268265-3)					
Phosphorus, Total	0.16	0.15	mg/l	6	20
Chemical Oxygen Demand for sample(s) 01 (L0700827-07, WG268193-4)					
Chemical Oxygen Demand	20	22	mg/l	10	
BOD, 5 day for sample(s) 01 (L0700711-01, WG267720-4)					
BOD, 5 day	220	200	mg/l	10	35
Oil & Grease, Hem-Grav for sample(s) 02 (L0701176-01, WG268751-4)					
Oil & Grease, Hem-Grav	16	17	mg/l	6	18
Phenolics, Total for sample(s) 02 (L0700711-02, WG268988-4)					
Phenolics, Total	0.20	0.18	mg/l	11	12
Total Metals for sample(s) 01 (L0700626-01, WG267980-1)					
Silver, Total	ND	ND	mg/l	NC	
Total Metals for sample(s) 01 (L0700711-01, WG268647-3)					
Mercury, Total	ND	ND	mg/l	NC	
SVOC's by GC/MS 625 for sample(s) 01 (L0700629-01, WG267926-4)					
Acenaphthene	ND	ND	ug/l	NC	30
Benzidine	ND	ND	ug/l	NC	30
1,2,4-Trichlorobenzene	ND	ND	ug/l	NC	30
Hexachlorobenzene	ND	ND	ug/l	NC	30
Bis(2-chloroethyl)ether	ND	ND	ug/l	NC	30
2-Chloronaphthalene	ND	ND	ug/l	NC	30
1,2-Dichlorobenzene	ND	ND	ug/l	NC	30
1,3-Dichlorobenzene	ND	ND	ug/l	NC	30
1,4-Dichlorobenzene	ND	ND	ug/l	NC	30
3,3'-Dichlorobenzidine	ND	ND	ug/l	NC	30
2,4-Dinitrotoluene	ND	ND	ug/l	NC	30
2,6-Dinitrotoluene	ND	ND	ug/l	NC	30
Azobenzene	ND	ND	ug/l	NC	30
Fluoranthene	ND	ND	ug/l	NC	30
4-Chlorophenyl phenyl ether	ND	ND	ug/l	NC	30
4-Bromophenyl phenyl ether	ND	ND	ug/l	NC	30
Bis(2-chloroisopropyl)ether	ND	ND	ug/l	NC	30
Bis(2-chloroethoxy)methane	ND	ND	ug/l	NC	30

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0700711

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
SVOC's by GC/MS 625 for sample(s) 01 (L0700629-01, WG267926-4)					
Hexachlorobutadiene	ND	ND	ug/l	NC	30
Hexachlorocyclopentadiene	ND	ND	ug/l	NC	30
Hexachloroethane	ND	ND	ug/l	NC	30
Isophorone	ND	ND	ug/l	NC	30
Naphthalene	ND	ND	ug/l	NC	30
Nitrobenzene	ND	ND	ug/l	NC	30
NDPA/DPA	ND	ND	ug/l	NC	30
n-Nitrosodi-n-propylamine	ND	ND	ug/l	NC	30
Bis(2-ethylhexyl)phthalate	ND	ND	ug/l	NC	30
Butyl benzyl phthalate	ND	ND	ug/l	NC	30
Di-n-butylphthalate	ND	ND	ug/l	NC	30
Di-n-octylphthalate	ND	ND	ug/l	NC	30
Diethyl phthalate	ND	ND	ug/l	NC	30
Dimethyl phthalate	ND	ND	ug/l	NC	30
Benzo(a)anthracene	ND	ND	ug/l	NC	30
Benzo(a)pyrene	ND	ND	ug/l	NC	30
Benzo(b)fluoranthene	ND	ND	ug/l	NC	30
Benzo(k)fluoranthene	ND	ND	ug/l	NC	30
Chrysene	ND	ND	ug/l	NC	30
Acenaphthylene	ND	ND	ug/l	NC	30
Anthracene	ND	ND	ug/l	NC	30
Benzo(ghi)perylene	ND	ND	ug/l	NC	30
Fluorene	ND	ND	ug/l	NC	30
Phenanthrene	ND	ND	ug/l	NC	30
Dibenzo(a,h)anthracene	ND	ND	ug/l	NC	30
Indeno(1,2,3-cd)pyrene	ND	ND	ug/l	NC	30
Pyrene	ND	ND	ug/l	NC	30
Aniline	ND	ND	ug/l	NC	30
4-Chloroaniline	ND	ND	ug/l	NC	30
1-Methylnaphthalene	ND	ND	ug/l	NC	30
2-Nitroaniline	ND	ND	ug/l	NC	30
3-Nitroaniline	ND	ND	ug/l	NC	30
4-Nitroaniline	ND	ND	ug/l	NC	30
Dibenzofuran	ND	ND	ug/l	NC	30
2-Methylnaphthalene	ND	ND	ug/l	NC	30
n-Nitrosodimethylamine	ND	ND	ug/l	NC	30
2,4,6-Trichlorophenol	ND	ND	ug/l	NC	30
p-Chloro-m-cresol	ND	ND	ug/l	NC	30
2-Chlorophenol	ND	ND	ug/l	NC	30
2,4-Dichlorophenol	ND	ND	ug/l	NC	30
2,4-Dimethylphenol	ND	ND	ug/l	NC	30
2-Nitrophenol	ND	ND	ug/l	NC	30
4-Nitrophenol	ND	ND	ug/l	NC	30
2,4-Dinitrophenol	ND	ND	ug/l	NC	30
4,6-Dinitro-o-cresol	ND	ND	ug/l	NC	30
Pentachlorophenol	ND	ND	ug/l	NC	30
Phenol	ND	ND	ug/l	NC	30
2-Methylphenol	ND	ND	ug/l	NC	30

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0700711

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
SVOC's by GC/MS 625 for sample(s) 01 (L0700629-01, WG267926-4)					
3-Methylphenol/4-Methylphenol	ND	ND	ug/l	NC	30
2,4,5-Trichlorophenol	ND	ND	ug/l	NC	30
2,6-Dichlorophenol	ND	ND	ug/l	NC	30
Benzoic Acid	ND	ND	ug/l	NC	30
Benzyl Alcohol	ND	ND	ug/l	NC	30
Carbazole	ND	ND	ug/l	NC	30
Surrogate(s)	Recovery				QC Criteria
2-Fluorophenol	23.0	34.0	%		21-120
Phenol-d6	24.0	44.0	%		10-120
Nitrobenzene-d5	49.0	54.0	%		23-120
2-Fluorobiphenyl	59.0	57.0	%		43-120
2,4,6-Tribromophenol	59.0	69.0	%		10-120
4-Terphenyl-d14	80.0	88.0	%		33-120
PCB/Pesticides for sample(s) 01 (L0700711-01, WG269173-4)					
Delta-BHC	ND	ND	ug/l	NC	30
Lindane	ND	ND	ug/l	NC	30
Alpha-BHC	ND	ND	ug/l	NC	30
Beta-BHC	ND	ND	ug/l	NC	30
Heptachlor	ND	ND	ug/l	NC	30
Aldrin	0.111	0.130	ug/l	16	30
Heptachlor epoxide	ND	ND	ug/l	NC	30
Endrin	ND	ND	ug/l	NC	30
Endrin aldehyde	ND	ND	ug/l	NC	30
Endrin ketone	ND	ND	ug/l	NC	30
Dieldrin	ND	ND	ug/l	NC	30
4,4'-DDE	ND	ND	ug/l	NC	30
4,4'-DDD	ND	ND	ug/l	NC	30
4,4'-DDT	ND	ND	ug/l	NC	30
Endosulfan I	ND	ND	ug/l	NC	30
Endosulfan II	ND	ND	ug/l	NC	30
Endosulfan sulfate	ND	ND	ug/l	NC	30
Methoxychlor	ND	ND	ug/l	NC	30
Toxaphene	ND	ND	ug/l	NC	30
Chlordane	ND	ND	ug/l	NC	30
cis-Chlordane	ND	ND	ug/l	NC	30
trans-Chlordane	ND	ND	ug/l	NC	30
Aroclor 1016	ND	ND	ug/l	NC	30
Aroclor 1221	ND	ND	ug/l	NC	30
Aroclor 1232	ND	ND	ug/l	NC	30
Aroclor 1242	ND	ND	ug/l	NC	30
Aroclor 1248	ND	ND	ug/l	NC	30
Aroclor 1254	ND	ND	ug/l	NC	30
Aroclor 1260	ND	ND	ug/l	NC	30

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0700711

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
PCB/Pesticides for sample(s) 01 (L0700711-01, WG269173-4)					
Surrogate(s)	Recovery				QC Criteria
2,4,5,6-Tetrachloro-m-xylene	54.0	59.0	%		30-150
Decachlorobiphenyl	60.0	62.0	%		30-150

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0700711

Parameter	% Recovery	QC Criteria
Cyanide, Total LCS for sample(s) 02 (WG268764-1)		
Cyanide, Total	106	90-110
Nitrogen, Ammonia LCS for sample(s) 01 (WG268660-2)		
Nitrogen, Ammonia	100	
Phosphorus, Total LCS for sample(s) 01 (WG268265-2)		
Phosphorus, Total	101	85-115
Chemical Oxygen Demand LCS for sample(s) 01 (WG268193-2)		
Chemical Oxygen Demand	99	
BOD, 5 day LCS for sample(s) 01 (WG267720-2)		
BOD, 5 day	89	85-115
Oil & Grease, Hem-Grav LCS for sample(s) 02 (WG268751-2)		
Oil & Grease, Hem-Grav	95	78-114
Phenolics, Total LCS for sample(s) 02 (WG268988-2)		
Phenolics, Total	95	82-111
Total Metals LCS for sample(s) 01 (WG267980-4)		
Aluminum, Total	100	
Antimony, Total	102	
Arsenic, Total	108	
Beryllium, Total	105	
Cadmium, Total	107	
Chromium, Total	100	
Copper, Total	94	
Lead, Total	104	
Nickel, Total	97	
Selenium, Total	109	
Silver, Total	97	
Thallium, Total	103	
Zinc, Total	101	
Total Metals LCS for sample(s) 01 (WG268647-1)		
Mercury, Total	98	
Volatile Organics by GC/MS 624 LCS for sample(s) 02 (WG267920-3)		
Methylene chloride	101	10-221
1,1-Dichloroethane	100	59-155
Chloroform	106	51-138
Carbon tetrachloride	98	70-140
1,2-Dichloropropane	95	10-210
Dibromochloromethane	95	53-149
1,1,2-Trichloroethane	102	52-150
2-Chloroethylvinyl ether	82	10-305
Tetrachloroethene	104	64-148

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0700711

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 624 LCS for sample(s) 02 (WG267920-3)		
Chlorobenzene	108	37-160
Trichlorofluoromethane	112	17-181
1,2-Dichloroethane	100	49-155
1,1,1-Trichloroethane	99	52-162
Bromodichloromethane	92	35-155
trans-1,3-Dichloropropene	82	17-183
cis-1,3-Dichloropropene	87	10-227
Bromoform	92	45-169
1,1,2,2-Tetrachloroethane	103	46-157
Benzene	106	37-151
Toluene	110	47-150
Ethylbenzene	120	37-162
Chloromethane	104	10-273
Bromomethane	110	10-242
Vinyl chloride	113	10-251
Chloroethane	103	14-230
1,1-Dichloroethene	98	10-234
trans-1,2-Dichloroethene	104	54-156
cis-1,2-Dichloroethene	102	60-140
Trichloroethene	98	71-157
1,2-Dichlorobenzene	113	18-190
1,3-Dichlorobenzene	110	59-156
1,4-Dichlorobenzene	114	18-190
p/m-Xylene	129	40-160
o-Xylene	123	40-160
XYLENE (TOTAL)	127	40-160
Styrene	117	40-160
Acetone	100	40-160
Carbon disulfide	97	40-160
2-Butanone	78	40-160
Vinyl acetate	112	40-160
4-Methyl-2-pentanone	76	40-160
2-Hexanone	68	40-160
Acrolein	116	40-160
Acrylonitrile	100	40-160
Surrogate(s)		
Pentafluorobenzene	98	80-120
Fluorobenzene	119	80-120
4-Bromofluorobenzene	105	80-120
SVOC's by GC/MS 625 LCS for sample(s) 01 (WG267926-2)		
Acenaphthene	55	46-118
1,2,4-Trichlorobenzene	42	39-98
2-Chloronaphthalene	55	40-140
1,2-Dichlorobenzene	42	40-140
1,4-Dichlorobenzene	39	36-97
2,4-Dinitrotoluene	94	24-96

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0700711

Continued

Parameter	% Recovery	QC Criteria
SVOC's by GC/MS 625 LCS for sample(s) 01 (WG267926-2)		
2,6-Dinitrotoluene	94	40-140
Fluoranthene	90	40-140
4-Chlorophenyl phenyl ether	64	40-140
n-Nitrosodi-n-propylamine	42	41-116
Butyl benzyl phthalate	96	40-140
Anthracene	69	40-140
Pyrene	86	26-127
Hexachloropropene	26	40-140
P-Chloro-M-Cresol	62	23-97
2-Chlorophenol	47	27-123
2-Nitrophenol	54	30-130
4-Nitrophenol	41	10-80
2,4-Dinitrophenol	43	30-130
Pentachlorophenol	84	9-103
Phenol	21	12-110
Surrogate(s)		
2-Fluorophenol	31	21-120
Phenol-d6	32	10-120
Nitrobenzene-d5	52	23-120
2-Fluorobiphenyl	52	43-120
2,4,6-Tribromophenol	82	10-120
4-Terphenyl-d14	96	33-120
PCB/Pesticides LCS for sample(s) 01 (WG269173-2)		
Delta-BHC	56	30-150
Lindane	67	30-150
Alpha-BHC	64	30-150
Beta-BHC	72	30-150
Heptachlor	58	30-150
Aldrin	46	30-150
Heptachlor epoxide	68	30-150
Endrin	86	30-150
Endrin aldehyde	55	30-150
Endrin ketone	63	30-150
Dieldrin	74	30-150
4,4'-DDE	70	30-150
4,4'-DDD	86	30-150
4,4'-DDT	76	30-150
Endosulfan I	70	30-150
Endosulfan II	80	30-150
Endosulfan sulfate	62	30-150
Methoxychlor	127	30-150
cis-Chlordane	66	30-150
trans-Chlordane	65	30-150

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0700711

Continued

Parameter	% Recovery	QC Criteria
PCB/Pesticides LCS for sample(s) 01 (WG269173-2)		
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	46	30-150
Decachlorobiphenyl	52	30-150
Cyanide, Total SPIKE for sample(s) 02 (L0700829-08, WG268764-3)		
Cyanide, Total	126	80-120
Nitrogen, Ammonia SPIKE for sample(s) 01 (L0701095-03, WG268660-3)		
Nitrogen, Ammonia	94	
Phosphorus, Total SPIKE for sample(s) 01 (L0700976-06, WG268265-4)		
Phosphorus, Total	97	80-120
Chemical Oxygen Demand SPIKE for sample(s) 01 (L0700827-07, WG268193-3)		
Chemical Oxygen Demand	101	
BOD, 5 day SPIKE for sample(s) 01 (L0700722-01, WG267720-3)		
BOD, 5 day	96	50-145
Oil & Grease, Hem-Grav SPIKE for sample(s) 02 (L0700797-02, WG268751-3)		
Oil & Grease, Hem-Grav	83	78-114
Phenolics, Total SPIKE for sample(s) 02 (L0700711-02, WG268988-3)		
Phenolics, Total	90	77-124
Total Metals SPIKE for sample(s) 01 (L0700626-01, WG267980-2)		
Aluminum, Total	110	
Antimony, Total	104	
Arsenic, Total	110	
Beryllium, Total	106	
Cadmium, Total	108	
Chromium, Total	100	
Copper, Total	97	
Lead, Total	107	
Nickel, Total	98	
Selenium, Total	110	
Silver, Total	99	
Thallium, Total	105	
Zinc, Total	104	
Total Metals SPIKE for sample(s) 01 (L0700711-01, WG268647-2)		
Mercury, Total	117	
SVOC's by GC/MS 625 SPIKE for sample(s) 01 (L0700629-01, WG267926-3)		
Acenaphthene	64	46-118
1,2,4-Trichlorobenzene	51	39-98
2-Chloronaphthalene	69	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0700711

Continued

Parameter	% Recovery	QC Criteria
SVOC's by GC/MS 625 SPIKE for sample(s) 01 (L0700629-01, WG267926-3)		
1,2-Dichlorobenzene	46	40-140
1,4-Dichlorobenzene	46	36-97
2,4-Dinitrotoluene	83	24-96
2,6-Dinitrotoluene	97	40-140
Fluoranthene	87	40-140
4-Chlorophenyl phenyl ether	78	40-140
n-Nitrosodi-n-propylamine	55	41-116
Butyl benzyl phthalate	92	40-140
Anthracene	42	40-140
Pyrene	78	26-127
Hexachloropropene	39	40-140
P-Chloro-M-Cresol	10	23-97
2-Chlorophenol	39	27-123
2-Nitrophenol	83	30-130
4-Nitrophenol	97	10-80
2,4-Dinitrophenol	110	30-130
Pentachlorophenol	53	9-103
Phenol	9	12-110
Surrogate(s)		
2-Fluorophenol	19	21-120
Phenol-d6	11	10-120
Nitrobenzene-d5	60	23-120
2-Fluorobiphenyl	65	43-120
2,4,6-Tribromophenol	62	10-120
4-Terphenyl-d14	88	33-120
PCB/Pesticides SPIKE for sample(s) 01 (L0700711-01, WG269173-3)		
Delta-BHC	58	30-150
Lindane	78	30-150
Alpha-BHC	72	30-150
Beta-BHC	74	30-150
Heptachlor	103	30-150
Aldrin	71	30-150
Heptachlor epoxide	70	30-150
Endrin	85	30-150
Endrin aldehyde	49	30-150
Endrin ketone	61	30-150
Dieldrin	61	30-150
4,4'-DDE	64	30-150
4,4'-DDD	74	30-150
4,4'-DDT	72	30-150
Endosulfan I	71	30-150
Endosulfan II	66	30-150
Endosulfan sulfate	72	30-150
Methoxychlor	119	30-150
cis-Chlordane	64	30-150
trans-Chlordane	59	30-150

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0700711

Continued

Parameter	% Recovery	QC Criteria
PCB/Pesticides SPIKE for sample(s) 01 (L0700711-01, WG269173-3)		
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	57	30-150
Decachlorobiphenyl	62	30-150

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0700711

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG268036-1)								
Solids, Total Suspended	ND	mg/l	5.0	4	160.2		0119 14:30	DW
Blank Analysis for sample(s) 02 (WG268764-2)								
Cyanide, Total	ND	mg/l	0.005	4	335.2	0126 16:30	0130 13:11	DD
Blank Analysis for sample(s) 01 (WG268660-1)								
Nitrogen, Ammonia	ND	mg/l	0.075	44	350.1	0125 16:00	0126 10:57	AT
Blank Analysis for sample(s) 01 (WG268265-1)								
Phosphorus, Total	ND	mg/l	0.01	4	365.2		0122 15:00	HS
Blank Analysis for sample(s) 01 (WG268193-1)								
Chemical Oxygen Demand	ND	mg/l	20.	44	410.4		0122 10:15	DW
Blank Analysis for sample(s) 01 (WG267720-1)								
BOD, 5 day	ND	mg/l	2.0	4	405.1	0117 07:30	0122 12:10	DW
Blank Analysis for sample(s) 02 (WG268751-1)								
Oil & Grease, Hem-Grav	ND	mg/l	4.0	74	1664A	0125 13:30	0129 06:45	AT
Blank Analysis for sample(s) 02 (WG268988-1)								
Phenolics, Total	ND	mg/l	0.03	4	420.1		0129 09:00	AT
Blank Analysis for sample(s) 01 (WG267980-3)								
Total Metals				19	200.7			
Aluminum, Total	ND	mg/l	0.10	19	200.7	0118 17:00	0123 09:28	MG
Antimony, Total	ND	mg/l	0.050	19	200.7	0118 17:00	0123 09:28	MG
Arsenic, Total	ND	mg/l	0.005	19	200.7	0118 17:00	0123 09:28	MG
Beryllium, Total	ND	mg/l	0.005	19	200.7	0118 17:00	0123 09:28	MG
Cadmium, Total	ND	mg/l	0.005	19	200.7	0118 17:00	0123 09:28	MG
Chromium, Total	ND	mg/l	0.01	19	200.7	0118 17:00	0123 09:28	MG
Copper, Total	ND	mg/l	0.010	19	200.7	0118 17:00	0123 09:28	MG
Lead, Total	ND	mg/l	0.010	19	200.7	0118 17:00	0123 09:28	MG
Nickel, Total	ND	mg/l	0.025	19	200.7	0118 17:00	0123 09:28	MG
Selenium, Total	ND	mg/l	0.010	19	200.7	0118 17:00	0123 09:28	MG
Silver, Total	ND	mg/l	0.007	19	200.7	0118 17:00	0123 09:28	MG
Thallium, Total	ND	mg/l	0.020	19	200.7	0118 17:00	0123 09:28	MG
Zinc, Total	ND	mg/l	0.050	19	200.7	0118 17:00	0123 09:28	MG

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0700711

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG268647-4)								
Total Metals								
Mercury, Total	ND	mg/l	0.0002	4	245.2	0125 17:00	0126 10:29	DM
Blank Analysis for sample(s) 02 (WG267920-4)								
Volatile Organics by GC/MS 624				5	624		0117 08:34	MM
Methylene chloride	ND	ug/l	5.0					
1,1-Dichloroethane	ND	ug/l	1.5					
Chloroform	ND	ug/l	1.5					
Carbon tetrachloride	ND	ug/l	1.0					
1,2-Dichloropropane	ND	ug/l	3.5					
Dibromochloromethane	ND	ug/l	1.0					
1,1,2-Trichloroethane	ND	ug/l	1.5					
2-Chloroethylvinyl ether	ND	ug/l	10.					
Tetrachloroethene	ND	ug/l	1.5					
Chlorobenzene	ND	ug/l	3.5					
Trichlorofluoromethane	ND	ug/l	5.0					
1,2-Dichloroethane	ND	ug/l	1.5					
1,1,1-Trichloroethane	ND	ug/l	2.0					
Bromodichloromethane	ND	ug/l	1.0					
trans-1,3-Dichloropropene	ND	ug/l	1.5					
cis-1,3-Dichloropropene	ND	ug/l	1.5					
Bromoform	ND	ug/l	1.0					
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0					
Benzene	ND	ug/l	1.0					
Toluene	ND	ug/l	1.0					
Ethylbenzene	ND	ug/l	1.0					
Chloromethane	ND	ug/l	10.					
Bromomethane	ND	ug/l	5.0					
Vinyl chloride	ND	ug/l	2.0					
Chloroethane	ND	ug/l	2.0					
1,1-Dichloroethene	ND	ug/l	1.0					
trans-1,2-Dichloroethene	ND	ug/l	1.5					
cis-1,2-Dichloroethene	ND	ug/l	1.0					
Trichloroethene	ND	ug/l	1.0					
1,2-Dichlorobenzene	ND	ug/l	5.0					
1,3-Dichlorobenzene	ND	ug/l	5.0					
1,4-Dichlorobenzene	ND	ug/l	5.0					
p/m-Xylene	ND	ug/l	2.0					
o-xylene	ND	ug/l	1.0					
Xylene (Total)	ND	ug/l	2.0					
Styrene	ND	ug/l	1.0					
Acetone	ND	ug/l	10.					
Carbon disulfide	ND	ug/l	5.0					
2-Butanone	ND	ug/l	10.					
Vinyl acetate	ND	ug/l	20.					
4-Methyl-2-pentanone	ND	ug/l	10.					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0700711

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02 (WG267920-4)							
Volatile Organics by GC/MS 624 cont'd				5 624		0117 08:34	MM
2-Hexanone	ND	ug/l	10.				
Acrolein	ND	ug/l	8.0				
Acrylonitrile	ND	ug/l	10.				
Methyl tert butyl ether	ND	ug/l	20.				
1,4-Dioxane	ND	ug/l	2000				
Tert-Butyl Alcohol	ND	ug/l	100				
Tertiary-Amyl Methyl Ether	ND	ug/l	20.				
Surrogate(s)	Recovery		QC Criteria				
Pentafluorobenzene	103	%	80-120				
Fluorobenzene	119	%	80-120				
4-Bromofluorobenzene	118	%	80-120				
Blank Analysis for sample(s) 01 (WG267926-1)							
SVOC's by GC/MS 625				5 625	0118 10:05	0120 12:58	RL
Acenaphthene	ND	ug/l	5.0				
Benzidine	ND	ug/l	50.				
1,2,4-Trichlorobenzene	ND	ug/l	5.0				
Hexachlorobenzene	ND	ug/l	5.0				
Bis(2-chloroethyl)ether	ND	ug/l	5.0				
2-Chloronaphthalene	ND	ug/l	6.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
3,3'-Dichlorobenzidine	ND	ug/l	50.				
2,4-Dinitrotoluene	ND	ug/l	6.0				
2,6-Dinitrotoluene	ND	ug/l	5.0				
Azobenzene	ND	ug/l	5.0				
Fluoranthene	ND	ug/l	5.0				
4-Chlorophenyl phenyl ether	ND	ug/l	5.0				
4-Bromophenyl phenyl ether	ND	ug/l	5.0				
Bis(2-chloroisopropyl)ether	ND	ug/l	5.0				
Bis(2-chloroethoxy)methane	ND	ug/l	5.0				
Hexachlorobutadiene	ND	ug/l	10.				
Hexachlorocyclopentadiene	ND	ug/l	30.				
Hexachloroethane	ND	ug/l	5.0				
Isophorone	ND	ug/l	5.0				
Naphthalene	ND	ug/l	5.0				
Nitrobenzene	ND	ug/l	5.0				
NDPA/DPA	ND	ug/l	15.				
n-Nitrosodi-n-propylamine	ND	ug/l	5.0				
Bis(2-ethylhexyl)phthalate	ND	ug/l	5.0				
Butyl benzyl phthalate	ND	ug/l	5.0				
Di-n-butylphthalate	ND	ug/l	5.0				
Di-n-octylphthalate	ND	ug/l	5.0				
Diethyl phthalate	ND	ug/l	5.0				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0700711

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG267926-1)								
SVOC's by GC/MS 625 cont'd				5	625	0118 10:05	0120 12:58	RL
Dimethyl phthalate	ND	ug/l	5.0					
Benzo(a)anthracene	ND	ug/l	5.0					
Benzo(a)pyrene	ND	ug/l	5.0					
Benzo(b)fluoranthene	ND	ug/l	5.0					
Benzo(k)fluoranthene	ND	ug/l	5.0					
Chrysene	ND	ug/l	5.0					
Acenaphthylene	ND	ug/l	5.0					
Anthracene	ND	ug/l	5.0					
Benzo(ghi)perylene	ND	ug/l	5.0					
Fluorene	ND	ug/l	5.0					
Phenanthrene	ND	ug/l	5.0					
Dibenzo(a,h)anthracene	ND	ug/l	5.0					
Indeno(1,2,3-cd)pyrene	ND	ug/l	7.0					
Pyrene	ND	ug/l	5.0					
Aniline	ND	ug/l	20.					
4-Chloroaniline	ND	ug/l	5.0					
1-Methylnaphthalene	ND	ug/l	5.0					
2-Nitroaniline	ND	ug/l	5.0					
3-Nitroaniline	ND	ug/l	5.0					
4-Nitroaniline	ND	ug/l	7.0					
Dibenzofuran	ND	ug/l	5.0					
2-Methylnaphthalene	ND	ug/l	5.0					
n-Nitrosodimethylamine	ND	ug/l	50.					
2,4,6-Trichlorophenol	ND	ug/l	5.0					
p-Chloro-m-cresol	ND	ug/l	5.0					
2-Chlorophenol	ND	ug/l	6.0					
2,4-Dichlorophenol	ND	ug/l	10.					
2,4-Dimethylphenol	ND	ug/l	10.					
2-Nitrophenol	ND	ug/l	20.					
4-Nitrophenol	ND	ug/l	10.					
2,4-Dinitrophenol	ND	ug/l	30.					
4,6-Dinitro-o-cresol	ND	ug/l	20.					
Pentachlorophenol	ND	ug/l	10.					
Phenol	ND	ug/l	7.0					
2-Methylphenol	ND	ug/l	6.0					
3-Methylphenol/4-Methylphenol	ND	ug/l	6.0					
2,4,5-Trichlorophenol	ND	ug/l	5.0					
2,6-Dichlorophenol	ND	ug/l	10.					
Benzoic Acid	ND	ug/l	50.					
Benzyl Alcohol	ND	ug/l	10.					
Carbazole	ND	ug/l	5.0					
Surrogate(s)	Recovery		QC Criteria					
2-Fluorophenol	38.0	%	21-120					
Phenol-d6	36.0	%	10-120					
Nitrobenzene-d5	61.0	%	23-120					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0700711

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG267926-1)								
SVOC's by GC/MS 625 cont'd				5	625	0118 10:05	0120 12:58	RL
2-Fluorobiphenyl	53.0	%	43-120					
2,4,6-Tribromophenol	75.0	%	10-120					
4-Terphenyl-d14	91.0	%	33-120					
Blank Analysis for sample(s) 01 (WG269173-1)								
PCB/Pesticides				5	608	0123 14:05	0130 21:08	AK
Delta-BHC	ND	ug/l	0.020					
Lindane	ND	ug/l	0.020					
Alpha-BHC	ND	ug/l	0.020					
Beta-BHC	ND	ug/l	0.020					
Heptachlor	ND	ug/l	0.020					
Aldrin	ND	ug/l	0.020					
Heptachlor epoxide	ND	ug/l	0.020					
Endrin	ND	ug/l	0.040					
Endrin aldehyde	ND	ug/l	0.040					
Endrin ketone	ND	ug/l	0.040					
Dieldrin	ND	ug/l	0.040					
4,4'-DDE	ND	ug/l	0.040					
4,4'-DDD	ND	ug/l	0.040					
4,4'-DDT	ND	ug/l	0.040					
Endosulfan I	ND	ug/l	0.020					
Endosulfan II	ND	ug/l	0.040					
Endosulfan sulfate	ND	ug/l	0.040					
Methoxychlor	ND	ug/l	0.200					
Toxaphene	ND	ug/l	0.200					
Chlordane	ND	ug/l	0.200					
cis-Chlordane	ND	ug/l	0.020					
trans-Chlordane	ND	ug/l	0.020					
Aroclor 1016	ND	ug/l	0.250					
Aroclor 1221	ND	ug/l	0.250					
Aroclor 1232	ND	ug/l	0.250					
Aroclor 1242	ND	ug/l	0.250					
Aroclor 1248	ND	ug/l	0.250					
Aroclor 1254	ND	ug/l	0.250					
Aroclor 1260	ND	ug/l	0.250					
Surrogate(s)	Recovery		QC Criteria					
2,4,5,6-Tetrachloro-m-xylene	45.0	%	30-150					
Decachlorobiphenyl	49.0	%	30-150					

REFERENCES

4. Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

5. Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).

19. Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

44. Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

74. Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA WOODS HOLE LABS

WESTBORO, MA TEL: 508-898-9220 FAX:508-898-9193

RAYNHAM,MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 1/16/07

ALPHA Job #: L0700711

Client Information

Client: Rohm + Haas Electronic

Address: 455 Forest St.
Marlborough MA

Phone: 508-229-7177

Fax:

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Quarterly + Annual

Project Location: Solo outfall

Project #:

Project Manager: Keith Lemaire

ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: 1/30/07 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY -- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

Refrig. 4 °C During collection, storage and Transfer To ALPHA
Refrigeration Temp 40°F

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TSS	TPP13	BOD 5	NH3,00,TPH05	625	608	624	TCN	Total Phenol	Oil + Grease 5A	Sample Specific Comments
0711-01	A	1-16-7	0830	E	KL	✓										Composite
	B	1-16-7	0830	E	KL		✓	✓								Composite
	C	1-16-7	0830	E	KL			✓								Composite
	D	1-16-7	0830	E	KL				✓							Composite
	E + F	1-16-7	0830	E	KL					✓						Composite
	G + H	1-16-7	0830	E	KL						✓					Composite
-02	I + J	1-16-7	0830	E	KL							✓				Grab
	K	1-16-7	0830	E	KL								✓			Grab
	L	1-16-7	0830	E	KL									✓		Grab
	M + N	1-16-7	0830	E	KL										✓	Grab

SAMPLE HANDLING

Filtration
☐ Done
☐ Not needed
☐ Lab to do

Preservation
☐ Lab to do

(Please specify below)

TOTAL # BOTTLES

Container Type	P	A	P	P	A	A	NN	P	A	A
Preservative	A	C	A	D	H	H	H	E	D	B

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Keith Lemaire	1-16-07 11:00		1-16-07 11:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 10-OCT-05)

Alpha Analytical Labs
Sample Delivery Group Form

Laboratory Job No. L0700711 SDG Reviewer LR

Client: Rohm Date/Time: 1.16.07 1000

Preliminary Review

1. *Samples Delivered via:*

☐ Alpha Courier ☐ Express Mail
☑ Client ☐ Other_____

2. *Chain of Custody:*

☑ Present
☐ Absent

3. *Custody Seal:*

☑ Absent
☐ Present/Intact
☐ Present/Broken

3. *All Containers Accounted for:*

☑ Yes ☐ No

4. *Samples received:*

☑ Intact ☐ Extra: _____
☐ Broken Sample IDs : _____
☐ Leaking Sample IDs : _____

5. *Temperature Blank:*

☐ Present Temperature (in Celsius): ☐ 2 - 6 Celsius degrees
☐ Other _____
☑ Absent Is the ice (in blue ice) present? ☑ Yes Cooler Temp: 4 °C
☐ No *

Secondary Review

1. Do the sample(s) labels and Chain of Custody agree?
☑ Yes ☐ No * _____
2. Are the samples in appropriate containers?
☑ Yes ☐ No * _____
3. Are the samples properly preserved?
☑ Yes ☐ No * Initial pH= 2, 7, >12 Preserved In-House w/_____
4. Are the samples within holding times?
☑ Yes ☐ No * _____

* Contact client and attach the phone log

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com
MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Rohm & Haas

Address: 455 Forest Street
Marlboro, MA 01752

Attn: Mr. Keith LeMaire

Project Number:

Laboratory Job Number: L0718741

Date Received: 18-DEC-2007

Date Reported: 21-DEC-2007

Delivery Method: Client

Site: EBI-ROHM & HAAS

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0718741-01	A,B COMP	CO1 MAINTENANCE
L0718741-02	C,D,E&F&G, GRAB	CO1 MAINTENANCE

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Technical Representative

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0718741

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

Volatile Organics

L0718741-02 required re-analysis on a 5x dilution in order to quantitate the sample within the range of the calibration. The result is reported as a greater than value for the compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound which exceeded the range of the calibration.

Semivolatile Organics

L0718741-02 was re-analyzed on a 10x dilution due to non-target compounds above the calibration range on the original analysis. The results of the re-analysis are reported.

The WG306314-4 MS/MSD % recoveries for Pentachlorophenol, and the MS % recovery for 4-Nitrophenol, are above method acceptance criteria.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0718741-01
A,B COMP
Sample Matrix: WATER

Date Collected: 18-DEC-2007 08:30
Date Received : 18-DEC-2007
Date Reported : 21-DEC-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total Suspended	12	mg/l	5.0	30 2540D		1219 15:15	DW
Total Metals				19 200.7			
Antimony, Total	ND	mg/l	0.050	19 200.7	1220 17:00	1221 16:11	AI
Arsenic, Total	ND	mg/l	0.005	19 200.7	1220 17:00	1221 16:11	AI
Beryllium, Total	ND	mg/l	0.005	19 200.7	1220 17:00	1221 16:11	AI
Cadmium, Total	ND	mg/l	0.005	19 200.7	1220 17:00	1221 16:11	AI
Chromium, Total	ND	mg/l	0.01	19 200.7	1220 17:00	1221 16:11	AI
Mercury, Total	ND	mg/l	0.0002	3 245.1	1219 15:00	1220 13:17	RC
Selenium, Total	ND	mg/l	0.010	19 200.7	1220 17:00	1221 16:11	AI
Silver, Total	ND	mg/l	0.007	19 200.7	1220 17:00	1221 16:11	AI
Thallium, Total	ND	mg/l	0.020	19 200.7	1220 17:00	1221 16:11	AI
Zinc, Total	ND	mg/l	0.050	19 200.7	1220 17:00	1221 16:11	AI

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0718741-02
C,D,E&F&G, GRAB
Sample Matrix: WATER

Date Collected: 18-DEC-2007 08:30
Date Received : 18-DEC-2007
Date Reported : 21-DEC-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Amber,1-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Cyanide, Total	0.039	mg/l	0.005	30 4500CN-CE	1218 16:30	1219 18:35	DD
Volatile Organics by GC/MS 8260				1 8260B		1220 17:56	PD
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	1.0				
o-Xylene	ND	ug/l	1.0				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				

Comments: Complete list of References and Glossary of Terms found in Addendum I

Laboratory Sample Number: L0718741-02
C,D,E&F&G, GRAB

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260 cont'd				1 8260B		1220 17:56	PD
1,4-Dichlorobutane	ND	ug/l	5.0				
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	1.0				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	>100	ug/l	5				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
Vinyl acetate	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				
Ethyl methacrylate	ND	ug/l	5.0				
Acrylonitrile	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tetrahydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.0				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	ND	ug/l	0.50				
sec-Butylbenzene	ND	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	0.60				
Isopropylbenzene	ND	ug/l	0.50				
p-Isopropyltoluene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	ND	ug/l	0.50				
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	ND	ug/l	2.5				
1,2,4-Trimethylbenzene	ND	ug/l	2.5				
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5				
Ethyl ether	ND	ug/l	2.5				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	98.0	%	70-130				
Toluene-d8	100	%	70-130				
4-Bromofluorobenzene	100	%	70-130				
Dibromofluoromethane	100	%	70-130				
Volatile Organics by GC/MS 8260				1 8260B		1221 11:26	PD
Acetone	270	ug/l	25				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	96.0	%	70-130				
Toluene-d8	101	%	70-130				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0718741-02
C,D,E&F&G, GRAB

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 8260 cont'd				1	8260B		1221 11:26	PD
4-Bromofluorobenzene	100	%	70-130					
Dibromofluoromethane	94.0	%	70-130					
Semivolatile Organics by EPA 8270C				1	8270C	1218 17:00	1220 16:58	PS
Acenaphthene	ND	ug/l	48.					
Benzidine	ND	ug/l	480					
1,2,4-Trichlorobenzene	ND	ug/l	48.					
Hexachlorobenzene	ND	ug/l	48.					
Bis(2-chloroethyl)ether	ND	ug/l	48.					
2-Chloronaphthalene	ND	ug/l	58.					
1,2-Dichlorobenzene	ND	ug/l	48.					
1,3-Dichlorobenzene	ND	ug/l	48.					
1,4-Dichlorobenzene	ND	ug/l	48.					
3,3'-Dichlorobenzidine	ND	ug/l	480					
2,4-Dinitrotoluene	ND	ug/l	58.					
2,6-Dinitrotoluene	ND	ug/l	48.					
Azobenzene	ND	ug/l	48.					
Fluoranthene	ND	ug/l	48.					
4-Chlorophenyl phenyl ether	ND	ug/l	48.					
4-Bromophenyl phenyl ether	ND	ug/l	48.					
Bis(2-chloroisopropyl)ether	ND	ug/l	48.					
Bis(2-chloroethoxy)methane	ND	ug/l	48.					
Hexachlorobutadiene	ND	ug/l	97.					
Hexachlorocyclopentadiene	ND	ug/l	290					
Hexachloroethane	ND	ug/l	48.					
Isophorone	ND	ug/l	48.					
Naphthalene	ND	ug/l	48.					
Nitrobenzene	ND	ug/l	48.					
NitrosoDiPhenylAmine(NDPA)/DPA	ND	ug/l	140					
Bis(2-Ethylhexyl)phthalate	ND	ug/l	48.					
Butyl benzyl phthalate	ND	ug/l	48.					
Di-n-butylphthalate	ND	ug/l	48.					
Di-n-octylphthalate	ND	ug/l	48.					
Diethyl phthalate	ND	ug/l	48.					
Dimethyl phthalate	ND	ug/l	48.					
Benzo(a)anthracene	ND	ug/l	48.					
Benzo(a)pyrene	ND	ug/l	48.					
Benzo(b)fluoranthene	ND	ug/l	48.					
Benzo(k)fluoranthene	ND	ug/l	48.					
Chrysene	ND	ug/l	48.					
Acenaphthylene	ND	ug/l	48.					
Anthracene	ND	ug/l	48.					
Benzo(ghi)perylene	ND	ug/l	48.					
Fluorene	ND	ug/l	48.					
Phenanthrene	ND	ug/l	48.					
Dibenzo(a,h)anthracene	ND	ug/l	48.					
Indeno(1,2,3-cd)Pyrene	ND	ug/l	68.					
Pyrene	ND	ug/l	48.					
Aniline	ND	ug/l	190					

Comments: Complete list of References and Glossary of Terms found in Addendum I

Laboratory Sample Number: L0718741-02
C,D,E&F&G, GRAB

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Semivolatile Organics by EPA 8270C cont'd				1 8270C	1218 17:00	1220 16:58	PS
4-Chloroaniline	ND	ug/l	48.				
1-Methylnaphthalene	ND	ug/l	48.				
2-Nitroaniline	ND	ug/l	48.				
3-Nitroaniline	ND	ug/l	48.				
4-Nitroaniline	ND	ug/l	68.				
Dibenzofuran	ND	ug/l	48.				
2-Methylnaphthalene	ND	ug/l	48.				
n-Nitrosodimethylamine	ND	ug/l	480				
2,4,6-Trichlorophenol	ND	ug/l	48.				
P-Chloro-M-Cresol	ND	ug/l	48.				
2-Chlorophenol	ND	ug/l	58.				
2,4-Dichlorophenol	ND	ug/l	97.				
2,4-Dimethylphenol	ND	ug/l	97.				
2-Nitrophenol	ND	ug/l	190				
4-Nitrophenol	ND	ug/l	97.				
2,4-Dinitrophenol	ND	ug/l	290				
4,6-Dinitro-o-cresol	ND	ug/l	190				
Pentachlorophenol	ND	ug/l	97.				
Phenol	ND	ug/l	68.				
2-Methylphenol	ND	ug/l	58.				
3-Methylphenol/4-Methylphenol	ND	ug/l	58.				
2,4,5-Trichlorophenol	ND	ug/l	48.				
Benzoic Acid	ND	ug/l	480				
Benzyl Alcohol	ND	ug/l	97.				
Carbazole	ND	ug/l	48.				
Pyridine	ND	ug/l	480				

Surrogate(s)	Recovery		QC Criteria
2-Fluorophenol	50.0	%	21-120
Phenol-d6	42.0	%	10-120
Nitrobenzene-d5	82.0	%	23-120
2-Fluorobiphenyl	90.0	%	43-120
2,4,6-Tribromophenol	79.0	%	10-120
4-Terphenyl-d14	94.0	%	33-120

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0718741

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total Suspended for sample(s) 01 (L0718775-01, WG306324-2)					
Solids, Total Suspended	44	54	mg/l	20	32
Cyanide, Total for sample(s) 02 (L0718628-02, WG306245-4)					
Cyanide, Total	ND	ND	mg/l	NC	
Total Metals for sample(s) 01 (L0718262-01, WG306562-1)					
Antimony, Total	ND	ND	mg/l	NC	
Chromium, Total	ND	ND	mg/l	NC	
Silver, Total	ND	ND	mg/l	NC	
Zinc, Total	0.964	0.940	mg/l	3	
Total Metals for sample(s) 01 (L0718288-01, WG306411-3)					
Mercury, Total	ND	ND	mg/l	NC	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0718741

Parameter	% Recovery	QC Criteria
Cyanide, Total LCS for sample(s) 02 (WG306245-1)		
Cyanide, Total	106	
Total Metals LCS for sample(s) 01 (WG306562-4)		
Antimony, Total	102	
Arsenic, Total	110	
Beryllium, Total	102	
Cadmium, Total	108	
Chromium, Total	100	
Selenium, Total	115	
Silver, Total	101	
Thallium, Total	96	
Zinc, Total	100	
Total Metals LCS for sample(s) 01 (WG306411-1)		
Mercury, Total	112	
Volatile Organics by GC/MS 8260 LCS for sample(s) 02 (WG306184-11)		
Chlorobenzene	89	75-130
Benzene	93	76-127
Toluene	90	76-125
1,1-Dichloroethene	98	61-145
Trichloroethene	87	71-120
Surrogate(s)		
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130
Dibromofluoromethane	101	70-130
Volatile Organics by GC/MS 8260 LCS for sample(s) 02 (WG306184-9)		
Chlorobenzene	90	75-130
Benzene	92	76-127
Toluene	87	76-125
1,1-Dichloroethene	89	61-145
Trichloroethene	85	71-120
Surrogate(s)		
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	97	70-130
Dibromofluoromethane	104	70-130
Semivolatile Organics by EPA 8270C LCS for sample(s) 02 (WG306314-2)		
Acenaphthene	80	46-118
1,2,4-Trichlorobenzene	60	39-98
2-Chloronaphthalene	72	40-140
1,2-Dichlorobenzene	51	40-140
1,4-Dichlorobenzene	48	36-97

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0718741

Continued

Parameter	% Recovery	QC Criteria
Semivolatile Organics by EPA 8270C LCS for sample(s) 02 (WG306314-2)		
2,4-Dinitrotoluene	96	24-96
2,6-Dinitrotoluene	91	40-140
Fluoranthene	99	40-140
4-Chlorophenyl phenyl ether	84	40-140
n-Nitrosodi-n-propylamine	59	41-116
Butyl benzyl phthalate	99	40-140
Anthracene	76	40-140
Pyrene	97	26-127
P-Chloro-M-Cresol	74	23-97
2-Chlorophenol	54	27-123
2-Nitrophenol	62	30-130
4-Nitrophenol	39	10-80
2,4-Dinitrophenol	58	30-130
Pentachlorophenol	81	9-103
Phenol	24	12-110
Surrogate(s)		
2-Fluorophenol	35	21-120
Phenol-d6	30	10-120
Nitrobenzene-d5	66	23-120
2-Fluorobiphenyl	82	43-120
2,4,6-Tribromophenol	90	10-120
4-Terphenyl-d14	105	33-120
Cyanide, Total SPIKE for sample(s) 02 (L0718741-02, WG306245-3)		
Cyanide, Total	88	
Total Metals SPIKE for sample(s) 01 (L0718262-01, WG306562-2)		
Antimony, Total	92	
Arsenic, Total	114	
Beryllium, Total	110	
Cadmium, Total	92	
Chromium, Total	120	
Selenium, Total	94	
Silver, Total	88	
Thallium, Total	109	
Zinc, Total	99	
Total Metals SPIKE for sample(s) 01 (L0718288-01, WG306411-2)		
Mercury, Total	122	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0718741

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Volatile Organics by GC/MS 8260 for sample(s) 02 (L0718656-10, WG306184-2)					
Chlorobenzene	93	87	7	20	75-130
Benzene	92	88	4	20	76-127
Toluene	92	87	6	20	76-125
1,1-Dichloroethene	90	85	6	20	61-145
Trichloroethene	93	88	6	20	71-120
Surrogate(s)					
1,2-Dichloroethane-d4	106	107	1		70-130
Toluene-d8	101	100	1		70-130
4-Bromofluorobenzene	97	100	3		70-130
Dibromofluoromethane	99	101	2		70-130
Semivolatile Organics by EPA 8270C for sample(s) 02 (L0718741-02, WG306314-4)					
Acenaphthene	94	90	4	30	46-118
1,2,4-Trichlorobenzene	75	83	10	30	39-98
2-Chloronaphthalene	90	90	0	30	40-140
1,2-Dichlorobenzene	79	75	5	30	40-140
1,4-Dichlorobenzene	71	71	0	30	36-97
2,4-Dinitrotoluene	94	90	4	30	24-96
2,6-Dinitrotoluene	98	90	9	30	40-140
Fluoranthene	110	100	10	30	40-140
4-Chlorophenyl phenyl ether	90	98	9	30	40-140
n-Nitrosodi-n-propylamine	75	79	5	30	41-116
Butyl benzyl phthalate	110	110	0	30	40-140
Anthracene	75	71	5	30	40-140
Pyrene	110	100	10	30	26-127
P-Chloro-M-Cresol	90	92	2	30	23-97
2-Chlorophenol	77	81	5	30	27-123
2-Nitrophenol	79	81	3	30	30-130
4-Nitrophenol	83	71	16	30	10-80
2,4-Dinitrophenol	96	94	2	30	30-130
Pentachlorophenol	120	120	0	30	9-103
Phenol	69	58	17	30	12-110
Surrogate(s)					
2-Fluorophenol	68	68	0		21-120
Phenol-d6	82	71	14		10-120
Nitrobenzene-d5	83	86	4		23-120
2-Fluorobiphenyl	99	97	2		43-120
2,4,6-Tribromophenol	87	82	6		10-120
4-Terphenyl-d14	100	97	3		33-120

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0718741

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG306324-1)								
Solids, Total Suspended	ND	mg/l	5.0	30	2540D		1219 15:15	DW
Blank Analysis for sample(s) 02 (WG306245-2)								
Cyanide, Total	ND	mg/l	0.005	30	4500CN-CE	1218 16:30	1219 18:24	DD
Blank Analysis for sample(s) 01 (WG306562-3)								
Total Metals				19	200.7			
Antimony, Total	ND	mg/l	0.050	19	200.7	1220 17:00	1221 15:39	AI
Arsenic, Total	ND	mg/l	0.005	19	200.7	1220 17:00	1221 15:39	AI
Beryllium, Total	ND	mg/l	0.005	19	200.7	1220 17:00	1221 15:39	AI
Cadmium, Total	ND	mg/l	0.005	19	200.7	1220 17:00	1221 15:39	AI
Chromium, Total	ND	mg/l	0.01	19	200.7	1220 17:00	1221 15:39	AI
Selenium, Total	ND	mg/l	0.010	19	200.7	1220 17:00	1221 15:39	AI
Silver, Total	ND	mg/l	0.007	19	200.7	1220 17:00	1221 15:39	AI
Thallium, Total	ND	mg/l	0.020	19	200.7	1220 17:00	1221 15:39	AI
Zinc, Total	ND	mg/l	0.050	19	200.7	1220 17:00	1221 15:39	AI
Blank Analysis for sample(s) 01 (WG306411-4)								
Total Metals								
Mercury, Total	ND	mg/l	0.0002	3	245.1	1219 15:00	1220 12:49	RC
Blank Analysis for sample(s) 02 (WG306184-10)								
Volatile Organics by GC/MS 8260				1	8260B		1220 15:55	PD
Methylene chloride	ND	ug/l	5.0					
1,1-Dichloroethane	ND	ug/l	0.75					
Chloroform	ND	ug/l	0.75					
Carbon tetrachloride	ND	ug/l	0.50					
1,2-Dichloropropane	ND	ug/l	1.8					
Dibromochloromethane	ND	ug/l	0.50					
1,1,2-Trichloroethane	ND	ug/l	0.75					
Tetrachloroethene	ND	ug/l	0.50					
Chlorobenzene	ND	ug/l	0.50					
Trichlorofluoromethane	ND	ug/l	2.5					
1,2-Dichloroethane	ND	ug/l	0.50					
1,1,1-Trichloroethane	ND	ug/l	0.50					
Bromodichloromethane	ND	ug/l	0.50					
trans-1,3-Dichloropropene	ND	ug/l	0.50					
cis-1,3-Dichloropropene	ND	ug/l	0.50					
1,1-Dichloropropene	ND	ug/l	2.5					
Bromoform	ND	ug/l	2.0					
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50					
Benzene	ND	ug/l	0.50					
Toluene	ND	ug/l	0.75					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0718741

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02 (WG306184-10)							
Volatile Organics by GC/MS 8260 cont'd				1 8260B		1220 15:55	PD
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	1.0				
o-Xylene	ND	ug/l	1.0				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,4-Dichlorobutane	ND	ug/l	5.0				
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	1.0				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
Vinyl acetate	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				
Ethyl methacrylate	ND	ug/l	5.0				
Acrylonitrile	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tetrahydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.0				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	ND	ug/l	0.50				
sec-Butylbenzene	ND	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	0.60				
Isopropylbenzene	ND	ug/l	0.50				
p-Isopropyltoluene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	ND	ug/l	0.50				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0718741

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02 (WG306184-10)							
Volatile Organics by GC/MS 8260 cont'd				1 8260B		1220 15:55	PD
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	ND	ug/l	2.5				
1,2,4-Trimethylbenzene	ND	ug/l	2.5				
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5				
Ethyl ether	ND	ug/l	2.5				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	99.0	%	70-130				
Toluene-d8	101	%	70-130				
4-Bromofluorobenzene	100	%	70-130				
Dibromofluoromethane	101	%	70-130				
Blank Analysis for sample(s) 02 (WG306184-10)							
Volatile Organics by GC/MS 8260				1 8260B		1220 15:55	PD
Tentatively Identified Compounds							
No Tentatively Identified Compounds	ND	ug/l					
Blank Analysis for sample(s) 02 (WG306184-12)							
Volatile Organics by GC/MS 8260				1 8260B		1221 10:01	PD
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0718741

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02 (WG306184-12)							
Volatile Organics by GC/MS 8260 cont'd				1 8260B		1221 10:01	PD
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	1.0				
o-Xylene	ND	ug/l	1.0				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,4-Dichlorobutane	ND	ug/l	5.0				
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	1.0				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
Vinyl acetate	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				
Ethyl methacrylate	ND	ug/l	5.0				
Acrylonitrile	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tetrahydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.0				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	ND	ug/l	0.50				
sec-Butylbenzene	ND	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	0.60				
Isopropylbenzene	ND	ug/l	0.50				
p-Isopropyltoluene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	ND	ug/l	0.50				
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	ND	ug/l	2.5				
1,2,4-Trimethylbenzene	ND	ug/l	2.5				
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0718741

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02 (WG306184-12)							
Volatile Organics by GC/MS 8260 cont'd				1 8260B		1221 10:01	PD
Ethyl ether	ND	ug/l	2.5				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	100	%	70-130				
Toluene-d8	100	%	70-130				
4-Bromofluorobenzene	102	%	70-130				
Dibromofluoromethane	98.0	%	70-130				
Blank Analysis for sample(s) 02 (WG306314-1)							
Semivolatile Organics by EPA 8270C				1 8270C	1218 17:00	1219 10:21	PS
Acenaphthene	ND	ug/l	5.0				
Benzidine	ND	ug/l	50.				
1,2,4-Trichlorobenzene	ND	ug/l	5.0				
Hexachlorobenzene	ND	ug/l	5.0				
Bis(2-chloroethyl)ether	ND	ug/l	5.0				
2-Chloronaphthalene	ND	ug/l	6.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
3,3'-Dichlorobenzidine	ND	ug/l	50.				
2,4-Dinitrotoluene	ND	ug/l	6.0				
2,6-Dinitrotoluene	ND	ug/l	5.0				
Azobenzene	ND	ug/l	5.0				
Fluoranthene	ND	ug/l	5.0				
4-Chlorophenyl phenyl ether	ND	ug/l	5.0				
4-Bromophenyl phenyl ether	ND	ug/l	5.0				
Bis(2-chloroisopropyl)ether	ND	ug/l	5.0				
Bis(2-chloroethoxy)methane	ND	ug/l	5.0				
Hexachlorobutadiene	ND	ug/l	10.				
Hexachlorocyclopentadiene	ND	ug/l	30.				
Hexachloroethane	ND	ug/l	5.0				
Isophorone	ND	ug/l	5.0				
Naphthalene	ND	ug/l	5.0				
Nitrobenzene	ND	ug/l	5.0				
NitrosoDiPhenylAmine(NDPA)/DPA	ND	ug/l	15.				
Bis(2-Ethylhexyl)phthalate	ND	ug/l	5.0				
Butyl benzyl phthalate	ND	ug/l	5.0				
Di-n-butylphthalate	ND	ug/l	5.0				
Di-n-octylphthalate	ND	ug/l	5.0				
Diethyl phthalate	ND	ug/l	5.0				
Dimethyl phthalate	ND	ug/l	5.0				
Benzo(a)anthracene	ND	ug/l	5.0				
Benzo(a)pyrene	ND	ug/l	5.0				
Benzo(b)fluoranthene	ND	ug/l	5.0				
Benzo(k)fluoranthene	ND	ug/l	5.0				
Chrysene	ND	ug/l	5.0				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0718741

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02 (WG306314-1)							
Semivolatile Organics by EPA 8270C cont'd				1 8270C	1218 17:00	1219 10:21	PS
Acenaphthylene	ND	ug/l	5.0				
Anthracene	ND	ug/l	5.0				
Benzo(ghi)perylene	ND	ug/l	5.0				
Fluorene	ND	ug/l	5.0				
Phenanthrene	ND	ug/l	5.0				
Dibenzo(a,h)anthracene	ND	ug/l	5.0				
Indeno(1,2,3-cd)Pyrene	ND	ug/l	7.0				
Pyrene	ND	ug/l	5.0				
Aniline	ND	ug/l	20.				
4-Chloroaniline	ND	ug/l	5.0				
1-Methylnaphthalene	ND	ug/l	5.0				
2-Nitroaniline	ND	ug/l	5.0				
3-Nitroaniline	ND	ug/l	5.0				
4-Nitroaniline	ND	ug/l	7.0				
Dibenzofuran	ND	ug/l	5.0				
2-Methylnaphthalene	ND	ug/l	5.0				
n-Nitrosodimethylamine	ND	ug/l	50.				
2,4,6-Trichlorophenol	ND	ug/l	5.0				
P-Chloro-M-Cresol	ND	ug/l	5.0				
2-Chlorophenol	ND	ug/l	6.0				
2,4-Dichlorophenol	ND	ug/l	10.				
2,4-Dimethylphenol	ND	ug/l	10.				
2-Nitrophenol	ND	ug/l	20.				
4-Nitrophenol	ND	ug/l	10.				
2,4-Dinitrophenol	ND	ug/l	30.				
4,6-Dinitro-o-cresol	ND	ug/l	20.				
Pentachlorophenol	ND	ug/l	10.				
Phenol	ND	ug/l	7.0				
2-Methylphenol	ND	ug/l	6.0				
3-Methylphenol/4-Methylphenol	ND	ug/l	6.0				
2,4,5-Trichlorophenol	ND	ug/l	5.0				
Benzoic Acid	ND	ug/l	50.				
Benzyl Alcohol	ND	ug/l	10.				
Carbazole	ND	ug/l	5.0				
Pyridine	ND	ug/l	50.				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	35.0	%	21-120				
Phenol-d6	28.0	%	10-120				
Nitrobenzene-d5	66.0	%	23-120				
2-Fluorobiphenyl	69.0	%	43-120				
2,4,6-Tribromophenol	68.0	%	10-120				
4-Terphenyl-d14	101	%	33-120				

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

3. Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

19. Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 12/18/07

ALPHA Job #: L0718741

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Rohm & Haas E.M.
Address: 455 Forest St.
Marlborough MA.
Phone: 508-229-7177
Fax:
Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: EBI-Rohm & Haas
Project Location: COI maintenance
Project #:
Project Manager: Keith Lemaire
ALPHA Quote #:

Turn-Around Time

☐ Standard ☑ RUSH (only confirmed if pre-approved!)

Date Due: 12-21-07 Time: 1200 Hrs

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY — CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

Please Send Results To Sarita Grace & Keith Lemaire

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Metals Sb, As, Be, Cd, Cr, Pb, Se, Ag, Tl, Zn	TSS	TCN	8260	8270	Sample Specific Comments
8741-01	A	12-18-07	0830	E	KL	✓					Comp
↓	B	12-18-07	0830	E	KL		✓				Comp
-02	C	12-18-07	0830	E	KL			✓			Grab
↓	D & E	12-18-07	0830	E	KL				✓		Grab
	F & G	12-18-07	0830	E	KL					✓	Grab

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Container Type	P	P	P	AV	A
Preservative	A	A	E	G	A

Relinquished By:	Date/Time	Received By:	Date/Time
Keith Lemaire	12-18-07 1032	T F (Courier)	12/18/07 1032

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 30-JUL-07)

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com
MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Rohm & Haas

Address: 455 Forest Street

Marlboro, MA 01752

Attn: Mr. Keith LeMaire

Project Number:

Laboratory Job Number: L0714684

Date Received: 04-OCT-2007

Date Reported: 18-OCT-2007

Delivery Method: Client

Site: SEMI ANNUAL (OCT)

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0714684-01	COMP	ATC-NS02
L0714684-02	GRAB	ATC-NS02
L0714684-03	TRIP BLANK	ATC-NS02

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Michelle M. Morris
Technical Representative

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0714684

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

Sample Receipt

The samples were received at the laboratory above the required temperature range. The samples were transported to the laboratory in a cooler with ice and delivered directly from the sampling site.

BOD

L0714684-01 is non-detect at an elevated detection limit due to the 5x dilution required for analysis of higher BOD concentrations. The dilutions for the BOD analysis were set based on COD prep data; however, no reportable BOD depletion occurred. The sample cannot be reanalyzed due to expired hold time.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0714684-01
COMP
Sample Matrix: WATER

Date Collected: 04-OCT-2007 08:30
Date Received : 04-OCT-2007
Date Reported : 18-OCT-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 4-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total Suspended	ND	mg/l	5.0	30 2540D		1008 09:00	DW
Nitrogen, Ammonia	1.40	mg/l	0.400	30 4500NH3-BE		1011 13:59	JL
Phosphorus, Total	0.02	mg/l	0.01	30 4500P-E		1010 15:00	HS
Chemical Oxygen Demand	250	mg/l	20	30 5220D		1018 07:30	DW
BOD, 5 day	ND	mg/l	10.	30 5210B	1005 12:50	1010 12:00	DW
Total Metals				19 200.7			
Aluminum, Total	ND	mg/l	0.10	19 200.7	1012 16:40	1016 13:23	AI
Antimony, Total	ND	mg/l	0.050	19 200.7	1012 16:40	1016 13:23	AI
Arsenic, Total	ND	mg/l	0.005	19 200.7	1012 16:40	1016 13:23	AI
Beryllium, Total	ND	mg/l	0.005	19 200.7	1012 16:40	1016 13:23	AI
Cadmium, Total	ND	mg/l	0.005	19 200.7	1012 16:40	1016 13:23	AI
Chromium, Total	ND	mg/l	0.01	19 200.7	1012 16:40	1016 13:23	AI
Copper, Total	0.025	mg/l	0.010	19 200.7	1012 16:40	1016 13:23	AI
Lead, Total	ND	mg/l	0.010	19 200.7	1012 16:40	1016 13:23	AI
Mercury, Total	ND	mg/l	0.0002	3 245.1	1010 18:00	1011 12:32	RC
Nickel, Total	ND	mg/l	0.025	19 200.7	1012 16:40	1016 13:23	AI
Selenium, Total	ND	mg/l	0.010	19 200.7	1012 16:40	1016 13:23	AI
Silver, Total	ND	mg/l	0.007	19 200.7	1012 16:40	1016 13:23	AI
Thallium, Total	ND	mg/l	0.020	19 200.7	1012 16:40	1016 13:23	AI
Zinc, Total	ND	mg/l	0.050	19 200.7	1012 16:40	1016 13:23	AI

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0714684-02
GRAB
Sample Matrix: WATER

Date Collected: 04-OCT-2007 08:30
Date Received : 04-OCT-2007
Date Reported : 18-OCT-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 5-Amber,1-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Cyanide, Total	ND	mg/l	0.005	30	4500CN-CE	1005 10:45	1005 17:20	DD
Oil & Grease, Hem-Grav	ND	mg/l	4.0	74	1664A	1015 13:00	1016 13:15	AT
Phenolics, Total	ND	mg/l	0.03	4	420.1		1009 09:30	AT
Volatile Organics by GC/MS 624				5	624		1007 22:32	MM
Methylene chloride	ND	ug/l	5.0					
1,1-Dichloroethane	ND	ug/l	1.5					
Chloroform	ND	ug/l	1.5					
Carbon tetrachloride	ND	ug/l	1.0					
1,2-Dichloropropane	ND	ug/l	3.5					
Dibromochloromethane	ND	ug/l	1.0					
1,1,2-Trichloroethane	ND	ug/l	1.5					
2-Chloroethylvinyl ether	ND	ug/l	10.					
Tetrachloroethene	ND	ug/l	1.5					
Chlorobenzene	ND	ug/l	3.5					
1,2-Dichloroethane	ND	ug/l	1.5					
1,1,1-Trichloroethane	ND	ug/l	2.0					
Bromodichloromethane	ND	ug/l	1.0					
trans-1,3-Dichloropropene	ND	ug/l	1.5					
cis-1,3-Dichloropropene	ND	ug/l	1.5					
Bromoform	ND	ug/l	1.0					
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0					
Benzene	ND	ug/l	1.0					
Toluene	ND	ug/l	1.0					
Ethylbenzene	ND	ug/l	1.0					
Chloromethane	ND	ug/l	10.					
Bromomethane	ND	ug/l	5.0					
Vinyl chloride	ND	ug/l	2.0					
Chloroethane	ND	ug/l	2.0					
1,1-Dichloroethene	ND	ug/l	1.0					
trans-1,2-Dichloroethene	ND	ug/l	1.5					
Trichloroethene	ND	ug/l	1.0					
1,2-Dichlorobenzene	ND	ug/l	5.0					
1,3-Dichlorobenzene	ND	ug/l	5.0					
1,4-Dichlorobenzene	ND	ug/l	5.0					
Acrolein	ND	ug/l	8.0					
Acrylonitrile	ND	ug/l	10.					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0714684-02
GRAB

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 624 cont'd				5	624		1007 22:32	MM
Surrogate(s)	Recovery		QC Criteria					
Pentafluorobenzene	99.0	%	80-120					
Fluorobenzene	106	%	80-120					
4-Bromofluorobenzene	102	%	80-120					
SVOC's by GC/MS 625				5	625	1009 17:00	1018 14:13	PS
Acenaphthene	ND	ug/l	4.9					
Benzidine	ND	ug/l	49.					
1,2,4-Trichlorobenzene	ND	ug/l	4.9					
Hexachlorobenzene	ND	ug/l	4.9					
Bis(2-chloroethyl)ether	ND	ug/l	4.9					
2-Chloronaphthalene	ND	ug/l	5.9					
1,2-Dichlorobenzene	ND	ug/l	4.9					
1,3-Dichlorobenzene	ND	ug/l	4.9					
1,4-Dichlorobenzene	ND	ug/l	4.9					
3,3'-Dichlorobenzidine	ND	ug/l	49.					
2,4-Dinitrotoluene	ND	ug/l	5.9					
2,6-Dinitrotoluene	ND	ug/l	4.9					
Azobenzene	ND	ug/l	4.9					
Fluoranthene	ND	ug/l	4.9					
4-Chlorophenyl phenyl ether	ND	ug/l	4.9					
4-Bromophenyl phenyl ether	ND	ug/l	4.9					
Bis(2-chloroisopropyl)ether	ND	ug/l	4.9					
Bis(2-chloroethoxy)methane	ND	ug/l	4.9					
Hexachlorobutadiene	ND	ug/l	9.9					
Hexachlorocyclopentadiene	ND	ug/l	30.					
Hexachloroethane	ND	ug/l	4.9					
Isophorone	ND	ug/l	4.9					
Naphthalene	ND	ug/l	4.9					
Nitrobenzene	ND	ug/l	4.9					
NDPA/DPA	ND	ug/l	15.					
n-Nitrosodi-n-propylamine	ND	ug/l	4.9					
Bis(2-ethylhexyl)phthalate	ND	ug/l	4.9					
Butyl benzyl phthalate	ND	ug/l	4.9					
Di-n-butylphthalate	ND	ug/l	4.9					
Di-n-octylphthalate	ND	ug/l	4.9					
Diethyl phthalate	ND	ug/l	4.9					
Dimethyl phthalate	ND	ug/l	4.9					
Benzo(a)anthracene	ND	ug/l	4.9					
Benzo(a)pyrene	ND	ug/l	4.9					
Benzo(b)fluoranthene	ND	ug/l	4.9					
Benzo(k)fluoranthene	ND	ug/l	4.9					
Chrysene	ND	ug/l	4.9					
Acenaphthylene	ND	ug/l	4.9					
Anthracene	ND	ug/l	4.9					
Benzo(ghi)perylene	ND	ug/l	4.9					
Fluorene	ND	ug/l	4.9					
Phenanthrene	ND	ug/l	4.9					
Dibenzo(a,h)anthracene	ND	ug/l	4.9					

Comments: Complete list of References and Glossary of Terms found in Addendum I

Laboratory Sample Number: L0714684-02
GRAB

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
SVOC's by GC/MS 625 cont'd				5 625	1009 17:00	1018 14:13	PS
Indeno(1,2,3-cd)pyrene	ND	ug/l	6.9				
Pyrene	ND	ug/l	4.9				
n-Nitrosodimethylamine	ND	ug/l	49.				
2,4,6-Trichlorophenol	ND	ug/l	4.9				
p-Chloro-m-cresol	ND	ug/l	4.9				
2-Chlorophenol	ND	ug/l	5.9				
2,4-Dichlorophenol	ND	ug/l	9.9				
2,4-Dimethylphenol	ND	ug/l	9.9				
2-Nitrophenol	ND	ug/l	20.				
4-Nitrophenol	ND	ug/l	9.9				
2,4-Dinitrophenol	ND	ug/l	30.				
4,6-Dinitro-o-cresol	ND	ug/l	20.				
Pentachlorophenol	ND	ug/l	9.9				
Phenol	ND	ug/l	6.9				
2-Methylphenol	ND	ug/l	5.9				
3-Methylphenol/4-Methylphenol	ND	ug/l	5.9				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	33.0	%	21-120				
Phenol-d6	27.0	%	10-120				
Nitrobenzene-d5	54.0	%	23-120				
2-Fluorobiphenyl	53.0	%	43-120				
2,4,6-Tribromophenol	86.0	%	10-120				
4-Terphenyl-d14	91.0	%	33-120				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0714684-03
TRIP BLANK
Sample Matrix: WATER

Date Collected: 03-OCT-2007 10:15
Date Received : 04-OCT-2007
Date Reported : 18-OCT-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 624				5 624		1007 21:57	MM
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	1.5				
Chloroform	ND	ug/l	1.5				
Carbon tetrachloride	ND	ug/l	1.0				
1,2-Dichloropropane	ND	ug/l	3.5				
Dibromochloromethane	ND	ug/l	1.0				
1,1,2-Trichloroethane	ND	ug/l	1.5				
2-Chloroethylvinyl ether	ND	ug/l	10.				
Tetrachloroethene	ND	ug/l	1.5				
Chlorobenzene	ND	ug/l	3.5				
1,2-Dichloroethane	ND	ug/l	1.5				
1,1,1-Trichloroethane	ND	ug/l	2.0				
Bromodichloromethane	ND	ug/l	1.0				
trans-1,3-Dichloropropene	ND	ug/l	1.5				
cis-1,3-Dichloropropene	ND	ug/l	1.5				
Bromoform	ND	ug/l	1.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0				
Benzene	ND	ug/l	1.0				
Toluene	ND	ug/l	1.0				
Ethylbenzene	ND	ug/l	1.0				
Chloromethane	ND	ug/l	10.				
Bromomethane	ND	ug/l	5.0				
Vinyl chloride	ND	ug/l	2.0				
Chloroethane	ND	ug/l	2.0				
1,1-Dichloroethene	ND	ug/l	1.0				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
Trichloroethene	ND	ug/l	1.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
Acrolein	ND	ug/l	8.0				
Acrylonitrile	ND	ug/l	10.				
Surrogate(s)	Recovery		QC Criteria				
Pentafluorobenzene	94.0	%	80-120				
Fluorobenzene	104	%	80-120				
4-Bromofluorobenzene	99.0	%	80-120				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0714684

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total Suspended for sample(s) 01 (L0714589-02, WG297053-2)					
Solids, Total Suspended	4700	4800	mg/l	2	32
Cyanide, Total for sample(s) 02 (L0714666-01, WG296864-3)					
Cyanide, Total	ND	ND	mg/l	NC	
Nitrogen, Ammonia for sample(s) 01 (L0714591-02, WG297647-3)					
Nitrogen, Ammonia	27.2	27.1	mg/l	0	20
Phosphorus, Total for sample(s) 01 (L0714956-03, WG297549-3)					
Phosphorus, Total	0.45	0.45	mg/l	0	20
Chemical Oxygen Demand for sample(s) 01 (L0714684-01, WG298484-4)					
Chemical Oxygen Demand	250	240	mg/l	4	12
BOD, 5 day for sample(s) 01 (L0714404-53, WG296900-4)					
BOD, 5 day	3.8	3.5	mg/l	8	35
Oil & Grease, Hem-Grav for sample(s) 02 (L0715101-02, WG298148-4)					
Oil & Grease, Hem-Grav	6.3	6.9	mg/l	9	18
Phenolics, Total for sample(s) 02 (L0714536-01, WG297304-4)					
Phenolics, Total	0.32	0.31	mg/l	3	12
Total Metals for sample(s) 01 (L0714684-01, WG297945-1)					
Aluminum, Total	ND	ND	mg/l	NC	
Antimony, Total	ND	ND	mg/l	NC	
Arsenic, Total	ND	ND	mg/l	NC	
Beryllium, Total	ND	ND	mg/l	NC	
Cadmium, Total	ND	ND	mg/l	NC	
Chromium, Total	ND	ND	mg/l	NC	
Copper, Total	0.025	0.024	mg/l	3	
Lead, Total	ND	ND	mg/l	NC	
Nickel, Total	ND	ND	mg/l	NC	
Selenium, Total	ND	ND	mg/l	NC	
Silver, Total	ND	ND	mg/l	NC	
Thallium, Total	ND	ND	mg/l	NC	
Zinc, Total	ND	ND	mg/l	NC	
Total Metals for sample(s) 01 (L0714788-01, WG297559-3)					
Mercury, Total	ND	ND	mg/l	NC	
Volatile Organics by GC/MS 624 for sample(s) 02-03 (L0714647-03, WG297075-2)					
Chlorobenzene	ND	ND	ug/l	NC	30
Benzene	ND	ND	ug/l	NC	30
1,2-Dichlorobenzene	ND	ND	ug/l	NC	30

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0714684

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Volatile Organics by GC/MS 624 for sample(s) 02-03 (L0714647-03, WG297075-2)					
Surrogate(s)	Recovery				QC Criteria
Pentafluorobenzene	96.0	100	%		80-120
Fluorobenzene	103	102	%		80-120
4-Bromofluorobenzene	102	95.0	%		80-120
SVOC's by GC/MS 625 for sample(s) 02 (L0714616-01, WG297393-4)					
Acenaphthene	ND	ND	ug/l	NC	30
Benzidine	ND	ND	ug/l	NC	30
1,2,4-Trichlorobenzene	ND	ND	ug/l	NC	30
Hexachlorobenzene	ND	ND	ug/l	NC	30
Bis(2-chloroethyl)ether	ND	ND	ug/l	NC	30
2-Chloronaphthalene	ND	ND	ug/l	NC	30
1,2-Dichlorobenzene	ND	ND	ug/l	NC	30
1,3-Dichlorobenzene	ND	ND	ug/l	NC	30
1,4-Dichlorobenzene	ND	ND	ug/l	NC	30
3,3'-Dichlorobenzidine	ND	ND	ug/l	NC	30
2,4-Dinitrotoluene	ND	ND	ug/l	NC	30
2,6-Dinitrotoluene	ND	ND	ug/l	NC	30
Azobenzene	ND	ND	ug/l	NC	30
Fluoranthene	ND	ND	ug/l	NC	30
4-Chlorophenyl phenyl ether	ND	ND	ug/l	NC	30
4-Bromophenyl phenyl ether	ND	ND	ug/l	NC	30
Bis(2-chloroisopropyl)ether	ND	ND	ug/l	NC	30
Bis(2-chloroethoxy)methane	ND	ND	ug/l	NC	30
Hexachlorobutadiene	ND	ND	ug/l	NC	30
Hexachlorocyclopentadiene	ND	ND	ug/l	NC	30
Hexachloroethane	ND	ND	ug/l	NC	30
Isophorone	ND	ND	ug/l	NC	30
Naphthalene	ND	ND	ug/l	NC	30
Nitrobenzene	ND	ND	ug/l	NC	30
NDPA/DPA	ND	ND	ug/l	NC	30
n-Nitrosodi-n-propylamine	ND	ND	ug/l	NC	30
Bis(2-ethylhexyl)phthalate	ND	ND	ug/l	NC	30
Butyl benzyl phthalate	ND	ND	ug/l	NC	30
Di-n-butylphthalate	ND	ND	ug/l	NC	30
Di-n-octylphthalate	ND	ND	ug/l	NC	30
Diethyl phthalate	ND	ND	ug/l	NC	30
Dimethyl phthalate	ND	ND	ug/l	NC	30
Benzo(a)anthracene	ND	ND	ug/l	NC	30
Benzo(a)pyrene	ND	ND	ug/l	NC	30
Benzo(b)fluoranthene	ND	ND	ug/l	NC	30
Benzo(k)fluoranthene	ND	ND	ug/l	NC	30
Chrysene	ND	ND	ug/l	NC	30
Acenaphthylene	ND	ND	ug/l	NC	30
Anthracene	ND	ND	ug/l	NC	30
Benzo(ghi)perylene	ND	ND	ug/l	NC	30
Fluorene	ND	ND	ug/l	NC	30

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0714684

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
SVOC's by GC/MS 625 for sample(s) 02 (L0714616-01, WG297393-4)					
Phenanthrene	ND	ND	ug/l	NC	30
Dibenzo(a,h)anthracene	ND	ND	ug/l	NC	30
Indeno(1,2,3-cd)pyrene	ND	ND	ug/l	NC	30
Pyrene	ND	ND	ug/l	NC	30
Aniline	ND	ND	ug/l	NC	30
4-Chloroaniline	ND	ND	ug/l	NC	30
1-Methylnaphthalene	ND	ND	ug/l	NC	30
2-Nitroaniline	ND	ND	ug/l	NC	30
3-Nitroaniline	ND	ND	ug/l	NC	30
4-Nitroaniline	ND	ND	ug/l	NC	30
Dibenzofuran	ND	ND	ug/l	NC	30
2-Methylnaphthalene	ND	ND	ug/l	NC	30
n-Nitrosodimethylamine	ND	ND	ug/l	NC	30
2,4,6-Trichlorophenol	ND	ND	ug/l	NC	30
p-Chloro-m-cresol	ND	ND	ug/l	NC	30
2-Chlorophenol	ND	ND	ug/l	NC	30
2,4-Dichlorophenol	ND	ND	ug/l	NC	30
2,4-Dimethylphenol	ND	ND	ug/l	NC	30
2-Nitrophenol	ND	ND	ug/l	NC	30
4-Nitrophenol	ND	ND	ug/l	NC	30
2,4-Dinitrophenol	ND	ND	ug/l	NC	30
4,6-Dinitro-o-cresol	ND	ND	ug/l	NC	30
Pentachlorophenol	ND	ND	ug/l	NC	30
Phenol	ND	ND	ug/l	NC	30
2-Methylphenol	ND	ND	ug/l	NC	30
3-Methylphenol/4-Methylphenol	ND	ND	ug/l	NC	30
2,4,5-Trichlorophenol	ND	ND	ug/l	NC	30
2,6-Dichlorophenol	ND	ND	ug/l	NC	30
Benzoic Acid	ND	ND	ug/l	NC	30
Benzyl Alcohol	ND	ND	ug/l	NC	30
Carbazole	ND	ND	ug/l	NC	30

Surrogate(s)	Recovery			QC Criteria
2-Fluorophenol	34.0	43.0	%	21-120
Phenol-d6	27.0	43.0	%	10-120
Nitrobenzene-d5	58.0	56.0	%	23-120
2-Fluorobiphenyl	56.0	56.0	%	43-120
2,4,6-Tribromophenol	88.0	84.0	%	10-120
4-Terphenyl-d14	80.0	83.0	%	33-120

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0714684

Parameter	% Recovery	QC Criteria
Cyanide, Total LCS for sample(s) 02 (WG296864-2)		
Cyanide, Total	103	
Nitrogen, Ammonia LCS for sample(s) 01 (WG297647-2)		
Nitrogen, Ammonia	89	80-120
Phosphorus, Total LCS for sample(s) 01 (WG297549-2)		
Phosphorus, Total	107	85-115
Chemical Oxygen Demand LCS for sample(s) 01 (WG298484-2)		
Chemical Oxygen Demand	97	93-106
BOD, 5 day LCS for sample(s) 01 (WG296900-2)		
BOD, 5 day	114	85-115
Oil & Grease, Hem-Grav LCS for sample(s) 02 (WG298148-2)		
Oil & Grease, Hem-Grav	90	78-114
Phenolics, Total LCS for sample(s) 02 (WG297304-2)		
Phenolics, Total	94	82-111
Total Metals LCS for sample(s) 01 (WG297945-4)		
Aluminum, Total	100	
Antimony, Total	100	
Arsenic, Total	108	
Beryllium, Total	101	
Cadmium, Total	108	
Chromium, Total	100	
Copper, Total	95	
Lead, Total	100	
Nickel, Total	96	
Selenium, Total	109	
Silver, Total	98	
Thallium, Total	102	
Zinc, Total	94	
Total Metals LCS for sample(s) 01 (WG297559-1)		
Mercury, Total	98	
Volatile Organics by GC/MS 624 LCS for sample(s) 02-03 (WG297075-5)		
Methylene chloride	114	10-221
1,1-Dichloroethane	99	59-155
Chloroform	104	51-138
Carbon tetrachloride	101	70-140
1,2-Dichloropropane	116	10-210
Dibromochloromethane	94	53-149
1,1,2-Trichloroethane	94	52-150
2-Chloroethylvinyl ether	100	10-305
Tetrachloroethene	95	64-148

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0714684

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 624 LCS for sample(s) 02-03 (WG297075-5)		
Chlorobenzene	95	37-160
Trichlorofluoromethane	121	17-181
1,2-Dichloroethane	108	49-155
1,1,1-Trichloroethane	92	52-162
Bromodichloromethane	95	35-155
trans-1,3-Dichloropropene	85	17-183
cis-1,3-Dichloropropene	86	10-227
Bromoform	90	45-169
1,1,2,2-Tetrachloroethane	93	46-157
Benzene	116	37-151
Toluene	103	47-150
Ethylbenzene	106	37-162
Chloromethane	126	10-273
Bromomethane	115	10-242
Vinyl chloride	128	10-251
Chloroethane	126	14-230
1,1-Dichloroethene	124	10-234
trans-1,2-Dichloroethene	111	54-156
cis-1,2-Dichloroethene	103	60-140
Trichloroethene	112	71-157
1,2-Dichlorobenzene	99	18-190
1,3-Dichlorobenzene	95	59-156
1,4-Dichlorobenzene	101	18-190
p/m-Xylene	112	40-160
o-Xylene	102	40-160
XYLENE (TOTAL)	108	40-160
Styrene	108	40-160
Acetone	110	40-160
Carbon disulfide	122	40-160
2-Butanone	96	40-160
Vinyl acetate	91	40-160
4-Methyl-2-pentanone	99	40-160
2-Hexanone	96	40-160
Acrolein	103	40-160
Acrylonitrile	123	40-160
Surrogate(s)		
Pentafluorobenzene	101	80-120
Fluorobenzene	106	80-120
4-Bromofluorobenzene	99	80-120
SVOC's by GC/MS 625 LCS for sample(s) 02 (WG297393-2)		
Acenaphthene	72	46-118
1,2,4-Trichlorobenzene	55	39-98
2-Chloronaphthalene	64	40-140
1,2-Dichlorobenzene	50	40-140
1,4-Dichlorobenzene	48	36-97
2,4-Dinitrotoluene	90	24-96

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0714684

Continued

Parameter	% Recovery	QC Criteria
SVOC's by GC/MS 625 LCS for sample(s) 02 (WG297393-2)		
2,6-Dinitrotoluene	94	40-140
Fluoranthene	101	40-140
4-Chlorophenyl phenyl ether	80	40-140
n-Nitrosodi-n-propylamine	56	41-116
Butyl benzyl phthalate	100	40-140
Anthracene	87	40-140
Pyrene	101	26-127
P-Chloro-M-Cresol	69	23-97
2-Chlorophenol	51	27-123
2-Nitrophenol	61	30-130
4-Nitrophenol	38	10-80
2,4-Dinitrophenol	68	30-130
Pentachlorophenol	79	9-103
Phenol	20	12-110
Surrogate(s)		
2-Fluorophenol	31	21-120
Phenol-d6	25	10-120
Nitrobenzene-d5	55	23-120
2-Fluorobiphenyl	60	43-120
2,4,6-Tribromophenol	85	10-120
4-Terphenyl-d14	93	33-120
Cyanide, Total SPIKE for sample(s) 02 (L0714634-01, WG296864-4)		
Cyanide, Total	96	
Nitrogen, Ammonia SPIKE for sample(s) 01 (L0714684-01, WG297647-4)		
Nitrogen, Ammonia	84	75-125
Phosphorus, Total SPIKE for sample(s) 01 (L0714772-01, WG297549-4)		
Phosphorus, Total	100	80-120
Chemical Oxygen Demand SPIKE for sample(s) 01 (L0714684-01, WG298484-3)		
Chemical Oxygen Demand	89	84-120
BOD, 5 day SPIKE for sample(s) 01 (L0714404-53, WG296900-3)		
BOD, 5 day	161	50-145
Oil & Grease, Hem-Grav SPIKE for sample(s) 02 (L0714684-02, WG298148-3)		
Oil & Grease, Hem-Grav	92	78-114
Phenolics, Total SPIKE for sample(s) 02 (L0714634-01, WG297304-3)		
Phenolics, Total	92	77-124
Total Metals SPIKE for sample(s) 01 (L0714684-01, WG297945-2)		
Aluminum, Total	85	
Antimony, Total	85	
Arsenic, Total	95	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0714684

Continued

Parameter	% Recovery	QC Criteria
Total Metals SPIKE for sample(s) 01 (L0714684-01, WG297945-2)		
Beryllium, Total	77	
Cadmium, Total	87	
Chromium, Total	75	
Copper, Total	78	
Lead, Total	83	
Nickel, Total	78	
Selenium, Total	87	
Silver, Total	82	
Thallium, Total	84	
Zinc, Total	84	
Total Metals SPIKE for sample(s) 01 (L0714788-01, WG297559-2)		
Mercury, Total	97	
Volatile Organics by GC/MS 624 SPIKE for sample(s) 02-03 (L0714647-02, WG297075-1)		
Methylene chloride	95	10-221
1,1-Dichloroethane	85	59-155
Chloroform	88	51-138
Carbon tetrachloride	89	70-140
1,2-Dichloropropane	96	10-210
Dibromochloromethane	86	53-149
1,1,2-Trichloroethane	88	52-150
2-Chloroethylvinyl ether	88	10-305
Tetrachloroethene	81	64-148
Chlorobenzene	78	37-160
Trichlorofluoromethane	104	17-181
1,2-Dichloroethane	94	49-155
1,1,1-Trichloroethane	83	52-162
Bromodichloromethane	85	35-155
trans-1,3-Dichloropropene	83	17-183
cis-1,3-Dichloropropene	80	10-227
Bromoform	82	45-169
1,1,2,2-Tetrachloroethane	84	46-157
Benzene	98	35-151
Toluene	89	47-150
Ethylbenzene	85	37-162
Chloromethane	101	10-273
Bromomethane	67	10-242
Vinyl chloride	103	10-251
Chloroethane	73	14-230
1,1-Dichloroethene	102	10-234
trans-1,2-Dichloroethene	89	54-156
cis-1,2-Dichloroethene	86	60-140
Trichloroethene	95	71-157
1,2-Dichlorobenzene	82	18-190
1,3-Dichlorobenzene	79	59-156
1,4-Dichlorobenzene	83	18-190
p/m-Xylene	91	40-160

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0714684

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 624 SPIKE for sample(s) 02-03 (L0714647-02, WG297075-1)		
o-Xylene	83	40-160
XYLENE (TOTAL)	88	40-160
Styrene	84	40-160
Acetone	111	40-160
Carbon disulfide	98	40-160
2-Butanone	91	40-160
Vinyl acetate	84	40-160
4-Methyl-2-pentanone	101	40-160
2-Hexanone	100	40-160
Acrolein	97	40-160
Acrylonitrile	114	40-160
Surrogate(s)		
Pentafluorobenzene	97	80-120
Fluorobenzene	102	80-120
4-Bromofluorobenzene	93	80-120
SVOC's by GC/MS 625 SPIKE for sample(s) 02 (L0714616-01, WG297393-3)		
Acenaphthene	71	46-118
1,2,4-Trichlorobenzene	56	39-98
2-Chloronaphthalene	61	40-140
1,2-Dichlorobenzene	47	40-140
1,4-Dichlorobenzene	47	36-97
2,4-Dinitrotoluene	85	24-96
2,6-Dinitrotoluene	85	40-140
Fluoranthene	94	40-140
4-Chlorophenyl phenyl ether	80	40-140
n-Nitrosodi-n-propylamine	47	41-116
Butyl benzyl phthalate	94	40-140
Anthracene	85	40-140
Pyrene	94	26-127
P-Chloro-M-Cresol	73	23-97
2-Chlorophenol	52	27-123
2-Nitrophenol	56	30-130
4-Nitrophenol	61	10-80
2,4-Dinitrophenol	71	30-130
Pentachlorophenol	80	9-103
Phenol	31	12-110
Surrogate(s)		
2-Fluorophenol	40	21-120
Phenol-d6	39	10-120
Nitrobenzene-d5	50	23-120
2-Fluorobiphenyl	58	43-120
2,4,6-Tribromophenol	91	10-120
4-Terphenyl-d14	85	33-120

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0714684

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG297053-1)							
Solids, Total Suspended	ND	mg/l	5.0	30 2540D		1008 09:00	DW
Blank Analysis for sample(s) 02 (WG296864-1)							
Cyanide, Total	ND	mg/l	0.005	30 4500CN-CE	1005 10:45	1005 16:58	DD
Blank Analysis for sample(s) 01 (WG297647-1)							
Nitrogen, Ammonia	ND	mg/l	0.400	30 4500NH3-BE		1011 13:06	JL
Blank Analysis for sample(s) 01 (WG297549-1)							
Phosphorus, Total	ND	mg/l	0.01	30 4500P-E		1010 15:00	HS
Blank Analysis for sample(s) 01 (WG298484-1)							
Chemical Oxygen Demand	ND	mg/l	20.	30 5220D		1018 07:30	DW
Blank Analysis for sample(s) 01 (WG296900-1)							
BOD, 5 day	ND	mg/l	2.0	30 5210B	1005 12:50	1010 12:00	DW
Blank Analysis for sample(s) 02 (WG298148-1)							
Oil & Grease, Hem-Grav	ND	mg/l	4.0	74 1664A	1015 13:00	1016 13:15	AT
Blank Analysis for sample(s) 02 (WG297304-1)							
Phenolics, Total	ND	mg/l	0.03	4 420.1		1009 09:30	AT
Blank Analysis for sample(s) 01 (WG297945-3)							
Total Metals				19 200.7			
Aluminum, Total	ND	mg/l	0.10	19 200.7	1012 16:40	1016 13:16	AI
Antimony, Total	ND	mg/l	0.050	19 200.7	1012 16:40	1016 13:16	AI
Arsenic, Total	ND	mg/l	0.005	19 200.7	1012 16:40	1016 13:16	AI
Beryllium, Total	ND	mg/l	0.005	19 200.7	1012 16:40	1016 13:16	AI
Cadmium, Total	ND	mg/l	0.005	19 200.7	1012 16:40	1016 13:16	AI
Chromium, Total	ND	mg/l	0.01	19 200.7	1012 16:40	1016 13:16	AI
Copper, Total	ND	mg/l	0.010	19 200.7	1012 16:40	1016 13:16	AI
Lead, Total	ND	mg/l	0.010	19 200.7	1012 16:40	1016 13:16	AI
Nickel, Total	ND	mg/l	0.025	19 200.7	1012 16:40	1016 13:16	AI
Selenium, Total	ND	mg/l	0.010	19 200.7	1012 16:40	1016 13:16	AI
Silver, Total	ND	mg/l	0.007	19 200.7	1012 16:40	1016 13:16	AI
Thallium, Total	ND	mg/l	0.020	19 200.7	1012 16:40	1016 13:16	AI
Zinc, Total	ND	mg/l	0.005	19 200.7	1012 16:40	1016 13:16	AI

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0714684

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG297559-4)								
Total Metals								
Mercury, Total	ND	mg/l	0.0002	3	245.1	1010 18:00	1011 12:29	RC
Blank Analysis for sample(s) 02-03 (WG297075-6)								
Volatile Organics by GC/MS 624				5	624		1007 13:39	MM
Methylene chloride	ND	ug/l	5.0					
1,1-Dichloroethane	ND	ug/l	1.5					
Chloroform	ND	ug/l	1.5					
Carbon tetrachloride	ND	ug/l	1.0					
1,2-Dichloropropane	ND	ug/l	3.5					
Dibromochloromethane	ND	ug/l	1.0					
1,1,2-Trichloroethane	ND	ug/l	1.5					
Tetrachloroethene	ND	ug/l	1.5					
Chlorobenzene	ND	ug/l	3.5					
Trichlorofluoromethane	ND	ug/l	5.0					
1,2-Dichloroethane	ND	ug/l	1.5					
1,1,1-Trichloroethane	ND	ug/l	2.0					
Bromodichloromethane	ND	ug/l	1.0					
trans-1,3-Dichloropropene	ND	ug/l	1.5					
cis-1,3-Dichloropropene	ND	ug/l	1.5					
Bromoform	ND	ug/l	1.0					
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0					
Benzene	ND	ug/l	1.0					
Toluene	ND	ug/l	1.0					
Ethylbenzene	ND	ug/l	1.0					
Chloromethane	ND	ug/l	10.					
Bromomethane	ND	ug/l	5.0					
Vinyl chloride	ND	ug/l	2.0					
Chloroethane	ND	ug/l	2.0					
1,1-Dichloroethene	ND	ug/l	1.0					
trans-1,2-Dichloroethene	ND	ug/l	1.5					
cis-1,2-Dichloroethene	ND	ug/l	1.0					
Trichloroethene	ND	ug/l	1.0					
1,2-Dichlorobenzene	ND	ug/l	5.0					
1,3-Dichlorobenzene	ND	ug/l	5.0					
1,4-Dichlorobenzene	ND	ug/l	5.0					
p/m-Xylene	ND	ug/l	2.0					
o-xylene	ND	ug/l	1.0					
Xylene (Total)	ND	ug/l	2.0					
Styrene	ND	ug/l	1.0					
Acetone	ND	ug/l	10.					
Carbon disulfide	ND	ug/l	5.0					
2-Butanone	ND	ug/l	10.					
Vinyl acetate	ND	ug/l	20.					
4-Methyl-2-pentanone	ND	ug/l	10.					
2-Hexanone	ND	ug/l	10.					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0714684

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02-03 (WG297075-6)							
Volatile Organics by GC/MS 624 cont'd				5 624		1007 13:39	MM
Acrolein	ND	ug/l	8.0				
Acrylonitrile	ND	ug/l	10.				
Methyl Acetate	ND	ug/l	20.				
Ethyl Acetate	ND	ug/l	20.				
Tetrahydrofuran	ND	ug/l	20.				
Acetonitrile	ND	ug/l	40.				
n-Hexane	ND	ug/l	20.				
Isopropyl Ether	ND	ug/l	20.				
Cyclohexane	ND	ug/l	20.				
Heptane	ND	ug/l	20.				
Butyl Acetate	ND	ug/l	20.				
Methyl tert butyl ether	ND	ug/l	20.				
Ethyl Ether	ND	ug/l	20.				
Dibromomethane	ND	ug/l	20.				
Surrogate(s)	Recovery		QC Criteria				
Pentafluorobenzene	100	%	80-120				
Fluorobenzene	109	%	80-120				
4-Bromofluorobenzene	98.0	%	80-120				
Blank Analysis for sample(s) 02 (WG297393-1)							
SVOC's by GC/MS 625				5 625	1009 17:00	1018 07:35	PS
Acenaphthene	ND	ug/l	5.0				
Benzidine	ND	ug/l	50.				
1,2,4-Trichlorobenzene	ND	ug/l	5.0				
Hexachlorobenzene	ND	ug/l	5.0				
Bis(2-chloroethyl)ether	ND	ug/l	5.0				
2-Chloronaphthalene	ND	ug/l	6.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
3,3'-Dichlorobenzidine	ND	ug/l	50.				
2,4-Dinitrotoluene	ND	ug/l	6.0				
2,6-Dinitrotoluene	ND	ug/l	5.0				
Azobenzene	ND	ug/l	5.0				
Fluoranthene	ND	ug/l	5.0				
4-Chlorophenyl phenyl ether	ND	ug/l	5.0				
4-Bromophenyl phenyl ether	ND	ug/l	5.0				
Bis(2-chloroisopropyl)ether	ND	ug/l	5.0				
Bis(2-chloroethoxy)methane	ND	ug/l	5.0				
Hexachlorobutadiene	ND	ug/l	10.				
Hexachlorocyclopentadiene	ND	ug/l	30.				
Hexachloroethane	ND	ug/l	5.0				
Isophorone	ND	ug/l	5.0				
Naphthalene	ND	ug/l	5.0				
Nitrobenzene	ND	ug/l	5.0				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0714684

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02 (WG297393-1)							
SVOC's by GC/MS 625 cont'd				5 625	1009 17:00	1018 07:35	PS
NDPA/DPA	ND	ug/l	15.				
n-Nitrosodi-n-propylamine	ND	ug/l	5.0				
Bis(2-ethylhexyl)phthalate	ND	ug/l	5.0				
Butyl benzyl phthalate	ND	ug/l	5.0				
Di-n-butylphthalate	ND	ug/l	5.0				
Di-n-octylphthalate	ND	ug/l	5.0				
Diethyl phthalate	ND	ug/l	5.0				
Dimethyl phthalate	ND	ug/l	5.0				
Benzo(a)anthracene	ND	ug/l	5.0				
Benzo(a)pyrene	ND	ug/l	5.0				
Benzo(b)fluoranthene	ND	ug/l	5.0				
Benzo(k)fluoranthene	ND	ug/l	5.0				
Chrysene	ND	ug/l	5.0				
Acenaphthylene	ND	ug/l	5.0				
Anthracene	ND	ug/l	5.0				
Benzo(ghi)perylene	ND	ug/l	5.0				
Fluorene	ND	ug/l	5.0				
Phenanthrene	ND	ug/l	5.0				
Dibenzo(a,h)anthracene	ND	ug/l	5.0				
Indeno(1,2,3-cd)pyrene	ND	ug/l	7.0				
Pyrene	ND	ug/l	5.0				
Aniline	ND	ug/l	20.				
4-Chloroaniline	ND	ug/l	5.0				
1-Methylnaphthalene	ND	ug/l	5.0				
2-Nitroaniline	ND	ug/l	5.0				
3-Nitroaniline	ND	ug/l	5.0				
4-Nitroaniline	ND	ug/l	7.0				
Dibenzofuran	ND	ug/l	5.0				
2-Methylnaphthalene	ND	ug/l	5.0				
n-Nitrosodimethylamine	ND	ug/l	50.				
2,4,6-Trichlorophenol	ND	ug/l	5.0				
p-Chloro-m-cresol	ND	ug/l	5.0				
2-Chlorophenol	ND	ug/l	6.0				
2,4-Dichlorophenol	ND	ug/l	10.				
2,4-Dimethylphenol	ND	ug/l	10.				
2-Nitrophenol	ND	ug/l	20.				
4-Nitrophenol	ND	ug/l	10.				
2,4-Dinitrophenol	ND	ug/l	30.				
4,6-Dinitro-o-cresol	ND	ug/l	20.				
Pentachlorophenol	ND	ug/l	10.				
Phenol	ND	ug/l	7.0				
2-Methylphenol	ND	ug/l	6.0				
3-Methylphenol/4-Methylphenol	ND	ug/l	6.0				
2,4,5-Trichlorophenol	ND	ug/l	5.0				
2,6-Dichlorophenol	ND	ug/l	10.				
Benzoic Acid	ND	ug/l	50.				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0714684

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02 (WG297393-1)							
SVOC's by GC/MS 625 cont'd				5 625	1009 17:00	1018 07:35	PS
Benzyl Alcohol	ND	ug/l	10.				
Carbazole	ND	ug/l	5.0				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	33.0	%	21-120				
Phenol-d6	26.0	%	10-120				
Nitrobenzene-d5	54.0	%	23-120				
2-Fluorobiphenyl	47.0	%	43-120				
2,4,6-Tribromophenol	79.0	%	10-120				
4-Terphenyl-d14	88.0	%	33-120				

REFERENCES

3. Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

4. Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

5. Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).

19. Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

74. Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 10/4/07

ALPHA Job #: L0714684

Client Information

Client: Rohm + Haas E.M.
Address: 455 Forest St.
Marlborough MA
Phone: (508) 229-7177
Fax: 508-481-2752
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Semi Annual (OCT.)
Project Location: ATC - NS02
Project #:
Project Manager: Keith Lomardo
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 10/18/07 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info | PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
Refrig. <4°C During collection, storage, and Transport
X-1: Trip Blank TO ALPHA
TTO 624
Refrigeration Temp 40°F

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Cd, Cr, Cu, Ni, Zn	Be, Pb, Hg, Se, Ag, Tl, Zn, Al	NH3, COD, TMos	BOD 5	TSS	TTO 625	Total Phenol	Oil & Grease (1664)	TCN	TTO 624	Sample Specific Comments	TOTAL # BOTTLES
14684-01	A	10-4-07	0830	E	K.L.	✓										Comp	
	B	10-4-07	0830	E	KL		✓									comp	
	C	10-4-07	0830	E	KL			✓								comp	
	D	10-4-07	0830	E	KL.				✓							comp	
-02	E & F	10-4-07	0830	E	KL.					✓						Grab	
	G	10-4-07	0830	E	KL.						✓					Grab	
	H & I	10-4-07	0830	E	KL.							✓				Grab	
	J	10-4-07	0830	E	KL.								✓			Grab	
	K & L	10-4-07	0830	E	KL.									✓		Grab	
-03	M	10-3-7	1015	X-1											✓		
					Container Type	P	P	P	P	A	A	A	P	V	V		
					Preservative	C	D	A	A	A	D	D	E	A	A		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Keith Lomardo	10-4-07 0920	[signature]	10/4/07 9:25

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 30-JUL-07)

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Rohm & Haas

Address: 455 Forest Street

Marlboro, MA 01752

Attn: Mr. Keith LeMaire

Project Number:

Site: SEMIANNUAL (APRIL)

Laboratory Job Number: L0705021

Date Received: 11-APR-2007

Date Reported: 25-APR-2007

Delivery Method: Client

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0705021-01	COMP	ATC-NS02
L0705021-02	GRAB	ATC-NS02
L0705021-03	TRIP BLANK	ATC-NS02

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: _____
Technical Director

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0705021

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

BOD-405

L0705021-01 has an elevated detection limit due to a 5x dilution required for analysis of higher BOD concentrations.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0705021-01
COMP
Sample Matrix: WATER

Date Collected: 11-APR-2007 08:00
Date Received : 11-APR-2007
Date Reported : 25-APR-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Amber,4-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total Suspended	ND	mg/l	5.0	4 160.2		0417 15:20	DW
Nitrogen, Ammonia	1.42	mg/l	0.400	44 350.2		0419 22:09	HG
Phosphorus, Total	0.13	mg/l	0.01	4 365.2		0416 15:00	HS
Chemical Oxygen Demand	85	mg/l	20	44 410.4		0420 11:30	DW
BOD, 5 day	78	mg/l	10	4 405.1	0412 08:40	0417 15:55	DW
Total Metals				19 200.7			
Antimony, Total	ND	mg/l	0.050	19 200.7	0412 17:45	0413 11:20	MG
Arsenic, Total	ND	mg/l	0.005	19 200.7	0412 17:45	0413 11:20	MG
Beryllium, Total	ND	mg/l	0.005	19 200.7	0412 17:45	0413 11:20	MG
Cadmium, Total	ND	mg/l	0.005	19 200.7	0412 17:45	0413 11:20	MG
Chromium, Total	ND	mg/l	0.01	19 200.7	0412 17:45	0413 11:20	MG
Copper, Total	0.014	mg/l	0.010	19 200.7	0412 17:45	0413 11:20	MG
Lead, Total	ND	mg/l	0.010	19 200.7	0412 17:45	0413 11:20	MG
Mercury, Total	ND	mg/l	0.0002	4 245.2	0419 18:15	0420 15:12	HG
Nickel, Total	ND	mg/l	0.025	19 200.7	0412 17:45	0413 11:20	MG
Selenium, Total	ND	mg/l	0.010	19 200.7	0412 17:45	0413 11:20	MG
Silver, Total	ND	mg/l	0.007	19 200.7	0412 17:45	0413 11:20	MG
Thallium, Total	ND	mg/l	0.020	19 200.7	0412 17:45	0413 11:20	MG
Zinc, Total	ND	mg/l	0.050	19 200.7	0412 17:45	0413 11:20	MG
SVOC's by GC/MS 625				5 625	0412 19:30	0425 12:33	RL
Acenaphthene	ND	ug/l	4.8				
Benzidine	ND	ug/l	48.				
1,2,4-Trichlorobenzene	ND	ug/l	4.8				
Hexachlorobenzene	ND	ug/l	4.8				
Bis(2-chloroethyl)ether	ND	ug/l	4.8				
2-Chloronaphthalene	ND	ug/l	5.8				
1,2-Dichlorobenzene	ND	ug/l	4.8				
1,3-Dichlorobenzene	ND	ug/l	4.8				
1,4-Dichlorobenzene	ND	ug/l	4.8				
3,3'-Dichlorobenzidine	ND	ug/l	48.				
2,4-Dinitrotoluene	ND	ug/l	5.8				
2,6-Dinitrotoluene	ND	ug/l	4.8				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0705021-01
COMP

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
SVOC's by GC/MS 625 cont'd				5 625	0412 19:30	0425 12:33	RL
Azobenzene	ND	ug/l	4.8				
Fluoranthene	ND	ug/l	4.8				
4-Chlorophenyl phenyl ether	ND	ug/l	4.8				
4-Bromophenyl phenyl ether	ND	ug/l	4.8				
Bis(2-chloroisopropyl)ether	ND	ug/l	4.8				
Bis(2-chloroethoxy)methane	ND	ug/l	4.8				
Hexachlorobutadiene	ND	ug/l	9.6				
Hexachlorocyclopentadiene	ND	ug/l	29.				
Hexachloroethane	ND	ug/l	4.8				
Isophorone	ND	ug/l	4.8				
Naphthalene	ND	ug/l	4.8				
Nitrobenzene	ND	ug/l	4.8				
NDPA/DPA	ND	ug/l	14.				
n-Nitrosodi-n-propylamine	ND	ug/l	4.8				
Bis(2-ethylhexyl)phthalate	ND	ug/l	4.8				
Butyl benzyl phthalate	ND	ug/l	4.8				
Di-n-butylphthalate	ND	ug/l	4.8				
Di-n-octylphthalate	ND	ug/l	4.8				
Diethyl phthalate	ND	ug/l	4.8				
Dimethyl phthalate	ND	ug/l	4.8				
Benzo(a)anthracene	ND	ug/l	4.8				
Benzo(a)pyrene	ND	ug/l	4.8				
Benzo(b)fluoranthene	ND	ug/l	4.8				
Benzo(k)fluoranthene	ND	ug/l	4.8				
Chrysene	ND	ug/l	4.8				
Acenaphthylene	ND	ug/l	4.8				
Anthracene	ND	ug/l	4.8				
Benzo(ghi)perylene	ND	ug/l	4.8				
Fluorene	ND	ug/l	4.8				
Phenanthrene	ND	ug/l	4.8				
Dibenzo(a,h)anthracene	ND	ug/l	4.8				
Indeno(1,2,3-cd)pyrene	ND	ug/l	6.7				
Pyrene	ND	ug/l	4.8				
Aniline	ND	ug/l	19.				
4-Chloroaniline	ND	ug/l	4.8				
1-Methylnaphthalene	ND	ug/l	4.8				
2-Nitroaniline	ND	ug/l	4.8				
3-Nitroaniline	ND	ug/l	4.8				
4-Nitroaniline	ND	ug/l	6.7				
Dibenzofuran	ND	ug/l	4.8				
2-Methylnaphthalene	ND	ug/l	4.8				
n-Nitrosodimethylamine	ND	ug/l	48.				
2,4,6-Trichlorophenol	ND	ug/l	4.8				
p-Chloro-m-cresol	ND	ug/l	4.8				
2-Chlorophenol	ND	ug/l	5.8				
2,4-Dichlorophenol	ND	ug/l	9.6				
2,4-Dimethylphenol	ND	ug/l	9.6				
2-Nitrophenol	ND	ug/l	19.				
4-Nitrophenol	ND	ug/l	9.6				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0705021-01
COMP

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
SVOC's by GC/MS 625 cont'd				5	625	0412 19:30	0425 12:33	RL
2,4-Dinitrophenol	ND	ug/l	29.					
4,6-Dinitro-o-cresol	ND	ug/l	19.					
Pentachlorophenol	ND	ug/l	9.6					
Phenol	ND	ug/l	6.7					
2-Methylphenol	ND	ug/l	5.8					
3-Methylphenol/4-Methylphenol	ND	ug/l	5.8					
2,4,5-Trichlorophenol	ND	ug/l	4.8					
2,6-Dichlorophenol	ND	ug/l	9.6					
Benzoic Acid	ND	ug/l	48.					
Benzyl Alcohol	ND	ug/l	9.6					
Carbazole	ND	ug/l	4.8					
Surrogate(s)	Recovery		QC Criteria					
2-Fluorophenol	35.0	%	21-120					
Phenol-d6	18.0	%	10-120					
Nitrobenzene-d5	76.0	%	23-120					
2-Fluorobiphenyl	59.0	%	43-120					
2,4,6-Tribromophenol	66.0	%	10-120					
4-Terphenyl-d14	87.0	%	33-120					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0705021-02
GRAB
Sample Matrix: WATER

Date Collected: 11-APR-2007 08:00
Date Received : 11-APR-2007
Date Reported : 25-APR-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 3-Amber,1-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Cyanide, Total	ND	mg/l	0.005	4	335.2	0412 16:00	0412 21:41	DD
Oil & Grease, Hem-Grav	ND	mg/l	4.4	74	1664A	0420 09:45	0423 13:30	AT
Phenolics, Total	ND	mg/l	0.03	4	420.1		0424 09:45	AT
Volatile Organics by GC/MS 624				5	624		0416 12:11	MM
Methylene chloride	ND	ug/l	5.0					
1,1-Dichloroethane	ND	ug/l	1.5					
Chloroform	3.8	ug/l	1.5					
Carbon tetrachloride	ND	ug/l	1.0					
1,2-Dichloropropane	ND	ug/l	3.5					
Dibromochloromethane	4.6	ug/l	1.0					
1,1,2-Trichloroethane	ND	ug/l	1.5					
2-Chloroethylvinyl ether	ND	ug/l	10.					
Tetrachloroethene	ND	ug/l	1.5					
Chlorobenzene	ND	ug/l	3.5					
Trichlorofluoromethane	ND	ug/l	5.0					
1,2-Dichloroethane	ND	ug/l	1.5					
1,1,1-Trichloroethane	ND	ug/l	2.0					
Bromodichloromethane	5.6	ug/l	1.0					
trans-1,3-Dichloropropene	ND	ug/l	1.5					
cis-1,3-Dichloropropene	ND	ug/l	1.5					
Bromoform	2.5	ug/l	1.0					
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0					
Benzene	ND	ug/l	1.0					
Toluene	ND	ug/l	1.0					
Ethylbenzene	ND	ug/l	1.0					
Chloromethane	ND	ug/l	10.					
Bromomethane	ND	ug/l	5.0					
Vinyl chloride	ND	ug/l	2.0					
Chloroethane	ND	ug/l	2.0					
1,1-Dichloroethene	ND	ug/l	1.0					
trans-1,2-Dichloroethene	ND	ug/l	1.5					
cis-1,2-Dichloroethene	ND	ug/l	1.0					
Trichloroethene	ND	ug/l	1.0					
1,2-Dichlorobenzene	ND	ug/l	5.0					
1,3-Dichlorobenzene	ND	ug/l	5.0					
1,4-Dichlorobenzene	ND	ug/l	5.0					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0705021-02
GRAB

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 624 cont'd				5 624		0416 12:11	MM
p/m-Xylene	ND	ug/l	2.0				
o-xylene	ND	ug/l	1.0				
Xylene (Total)	ND	ug/l	2.0				
Styrene	ND	ug/l	1.0				
Acetone	16	ug/l	10				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	10.				
Vinyl acetate	ND	ug/l	20.				
4-Methyl-2-pentanone	ND	ug/l	10.				
2-Hexanone	ND	ug/l	10.				
Acrolein	ND	ug/l	8.0				
Acrylonitrile	ND	ug/l	10.				
Surrogate(s)	Recovery		QC Criteria				
Pentafluorobenzene	86.0	%	80-120				
Fluorobenzene	97.0	%	80-120				
4-Bromofluorobenzene	100	%	80-120				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0705021-03
TRIP BLANK
Sample Matrix: WATER

Date Collected: 05-APR-2007 15:45
Date Received : 11-APR-2007
Date Reported : 25-APR-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 624				5 624		0416 12:46 MM	
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	1.5				
Chloroform	ND	ug/l	1.5				
Carbon tetrachloride	ND	ug/l	1.0				
1,2-Dichloropropane	ND	ug/l	3.5				
Dibromochloromethane	ND	ug/l	1.0				
1,1,2-Trichloroethane	ND	ug/l	1.5				
2-Chloroethylvinyl ether	ND	ug/l	10.				
Tetrachloroethene	ND	ug/l	1.5				
Chlorobenzene	ND	ug/l	3.5				
Trichlorofluoromethane	ND	ug/l	5.0				
1,2-Dichloroethane	ND	ug/l	1.5				
1,1,1-Trichloroethane	ND	ug/l	2.0				
Bromodichloromethane	ND	ug/l	1.0				
trans-1,3-Dichloropropene	ND	ug/l	1.5				
cis-1,3-Dichloropropene	ND	ug/l	1.5				
Bromoform	ND	ug/l	1.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0				
Benzene	ND	ug/l	1.0				
Toluene	ND	ug/l	1.0				
Ethylbenzene	ND	ug/l	1.0				
Chloromethane	ND	ug/l	10.				
Bromomethane	ND	ug/l	5.0				
Vinyl chloride	ND	ug/l	2.0				
Chloroethane	ND	ug/l	2.0				
1,1-Dichloroethene	ND	ug/l	1.0				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
cis-1,2-Dichloroethene	ND	ug/l	1.0				
Trichloroethene	ND	ug/l	1.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
p/m-Xylene	ND	ug/l	2.0				
o-xylene	ND	ug/l	1.0				
Xylene (Total)	ND	ug/l	2.0				
Styrene	ND	ug/l	1.0				
Acetone	ND	ug/l	10.				
Carbon disulfide	ND	ug/l	5.0				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0705021-03
TRIP BLANK

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 624 cont'd				5 624		0416 12:46	MM
2-Butanone	ND	ug/l	10.				
Vinyl acetate	ND	ug/l	20.				
4-Methyl-2-pentanone	ND	ug/l	10.				
2-Hexanone	ND	ug/l	10.				
Acrolein	ND	ug/l	8.0				
Acrylonitrile	ND	ug/l	10.				
Surrogate(s)	Recovery		QC Criteria				
Pentafluorobenzene	83.0	%	80-120				
Fluorobenzene	92.0	%	80-120				
4-Bromofluorobenzene	104	%	80-120				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0705021

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total Suspended for sample(s) 01 (L0705030-01, WG277050-2)					
Solids, Total Suspended	470	460	mg/l	2	20
Cyanide, Total for sample(s) 02 (L0705021-02, WG276569-4)					
Cyanide, Total	ND	ND	mg/l	NC	30
Nitrogen, Ammonia for sample(s) 01 (L0705357-01, WG277441-4)					
Nitrogen, Ammonia	2.10	2.07	mg/l	1	20
Phosphorus, Total for sample(s) 01 (L0705052-04, WG276945-3)					
Phosphorus, Total	0.17	0.17	mg/l	0	20
Chemical Oxygen Demand for sample(s) 01 (L0705434-07, WG277477-4)					
Chemical Oxygen Demand	27	34	mg/l	23	
BOD, 5 day for sample(s) 01 (L0705048-01, WG276496-4)					
BOD, 5 day	150	160	mg/l	6	35
Oil & Grease, Hem-Grav for sample(s) 02 (L0704932-02, WG277544-4)					
Oil & Grease, Hem-Grav	6.8	7.3	mg/l	7	18
Phenolics, Total for sample(s) 02 (L0705161-01, WG277864-4)					
Phenolics, Total	ND	ND	mg/l	NC	12
Total Metals for sample(s) 01 (L0704968-03, WG276648-1)					
Arsenic, Total	ND	ND	mg/l	NC	
Cadmium, Total	ND	ND	mg/l	NC	
Chromium, Total	ND	ND	mg/l	NC	
Copper, Total	ND	ND	mg/l	NC	
Lead, Total	ND	ND	mg/l	NC	
Nickel, Total	ND	ND	mg/l	NC	
Silver, Total	ND	ND	mg/l	NC	
Zinc, Total	ND	ND	mg/l	NC	
Total Metals for sample(s) 01 (L0705021-01, WG277428-3)					
Mercury, Total	ND	ND	mg/l	NC	
Volatile Organics by GC/MS 624 for sample(s) 02-03 (L0705142-02, WG277103-2)					
Methylene chloride	ND	ND	ug/l	NC	30
1,1-Dichloroethane	ND	ND	ug/l	NC	30
Chloroform	ND	ND	ug/l	NC	30
Carbon tetrachloride	ND	ND	ug/l	NC	30
1,2-Dichloropropane	ND	ND	ug/l	NC	30
Dibromochloromethane	ND	ND	ug/l	NC	30
1,1,2-Trichloroethane	ND	ND	ug/l	NC	30
2-Chloroethylvinyl ether	ND	ND	ug/l	NC	30
Tetrachloroethene	ND	ND	ug/l	NC	30
Chlorobenzene	ND	ND	ug/l	NC	30
Trichlorofluoromethane	ND	ND	ug/l	NC	30

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0705021

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Volatile Organics by GC/MS 624 for sample(s) 02-03 (L0705142-02, WG277103-2)					
1,2-Dichloroethane	ND	ND	ug/l	NC	30
1,1,1-Trichloroethane	ND	ND	ug/l	NC	30
Bromodichloromethane	ND	ND	ug/l	NC	30
trans-1,3-Dichloropropene	ND	ND	ug/l	NC	30
cis-1,3-Dichloropropene	ND	ND	ug/l	NC	30
Bromoform	ND	ND	ug/l	NC	30
1,1,2,2-Tetrachloroethane	ND	ND	ug/l	NC	30
Benzene	ND	ND	ug/l	NC	30
Toluene	ND	ND	ug/l	NC	30
Ethylbenzene	ND	ND	ug/l	NC	30
Chloromethane	ND	ND	ug/l	NC	30
Bromomethane	ND	ND	ug/l	NC	30
Vinyl chloride	ND	ND	ug/l	NC	30
Chloroethane	ND	ND	ug/l	NC	30
1,1-Dichloroethene	ND	ND	ug/l	NC	30
trans-1,2-Dichloroethene	ND	ND	ug/l	NC	30
cis-1,2-Dichloroethene	ND	ND	ug/l	NC	30
Trichloroethene	ND	ND	ug/l	NC	30
1,2-Dichlorobenzene	ND	ND	ug/l	NC	30
1,3-Dichlorobenzene	ND	ND	ug/l	NC	30
1,4-Dichlorobenzene	ND	ND	ug/l	NC	30
p/m-Xylene	ND	ND	ug/l	NC	30
o-xylene	ND	ND	ug/l	NC	30
Xylene (Total)	ND	ND	ug/l	NC	30
Styrene	ND	ND	ug/l	NC	30
Acetone	ND	ND	ug/l	NC	30
Carbon disulfide	ND	ND	ug/l	NC	30
2-Butanone	ND	ND	ug/l	NC	30
Vinyl acetate	ND	ND	ug/l	NC	30
4-Methyl-2-pentanone	ND	ND	ug/l	NC	30
2-Hexanone	ND	ND	ug/l	NC	30
Acrolein	ND	ND	ug/l	NC	30
Acrylonitrile	ND	ND	ug/l	NC	30
Methyl tert butyl ether	ND	ND	ug/l	NC	30
1,4-Dioxane	ND	ND	ug/l	NC	30
Tert-Butyl Alcohol	130	100	ug/l	26	30
Tertiary-Amyl Methyl Ether	ND	ND	ug/l	NC	30
Surrogate(s)	Recovery				QC Criteria
Pentafluorobenzene	85.0	89.0	%		80-120
Fluorobenzene	97.0	100	%		80-120
4-Bromofluorobenzene	96.0	102	%		80-120
SVOC's by GC/MS 625 for sample(s) 01 (L0705023-01, WG276609-4)					
Acenaphthene	ND	ND	ug/l	NC	30
Benzidine	ND	ND	ug/l	NC	30
1,2,4-Trichlorobenzene	ND	ND	ug/l	NC	30
Hexachlorobenzene	ND	ND	ug/l	NC	30

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0705021

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
SVOC's by GC/MS 625 for sample(s) 01 (L0705023-01, WG276609-4)					
Bis(2-chloroethyl)ether	ND	ND	ug/l	NC	30
2-Chloronaphthalene	ND	ND	ug/l	NC	30
1,2-Dichlorobenzene	ND	ND	ug/l	NC	30
1,3-Dichlorobenzene	ND	ND	ug/l	NC	30
1,4-Dichlorobenzene	ND	ND	ug/l	NC	30
3,3'-Dichlorobenzidine	ND	ND	ug/l	NC	30
2,4-Dinitrotoluene	ND	ND	ug/l	NC	30
2,6-Dinitrotoluene	ND	ND	ug/l	NC	30
Azobenzene	ND	ND	ug/l	NC	30
Fluoranthene	ND	ND	ug/l	NC	30
4-Chlorophenyl phenyl ether	ND	ND	ug/l	NC	30
4-Bromophenyl phenyl ether	ND	ND	ug/l	NC	30
Bis(2-chloroisopropyl)ether	ND	ND	ug/l	NC	30
Bis(2-chloroethoxy)methane	ND	ND	ug/l	NC	30
Hexachlorobutadiene	ND	ND	ug/l	NC	30
Hexachlorocyclopentadiene	ND	ND	ug/l	NC	30
Hexachloroethane	ND	ND	ug/l	NC	30
Isophorone	ND	ND	ug/l	NC	30
Naphthalene	ND	ND	ug/l	NC	30
Nitrobenzene	ND	ND	ug/l	NC	30
NDPA/DPA	ND	ND	ug/l	NC	30
n-Nitrosodi-n-propylamine	ND	ND	ug/l	NC	30
Bis(2-ethylhexyl)phthalate	ND	ND	ug/l	NC	30
Butyl benzyl phthalate	7.4	12	ug/l	47	30
Di-n-butylphthalate	ND	ND	ug/l	NC	30
Di-n-octylphthalate	ND	ND	ug/l	NC	30
Diethyl phthalate	ND	ND	ug/l	NC	30
Dimethyl phthalate	ND	ND	ug/l	NC	30
Benzo(a)anthracene	ND	ND	ug/l	NC	30
Benzo(a)pyrene	ND	ND	ug/l	NC	30
Benzo(b)fluoranthene	ND	ND	ug/l	NC	30
Benzo(k)fluoranthene	ND	ND	ug/l	NC	30
Chrysene	ND	ND	ug/l	NC	30
Acenaphthylene	ND	ND	ug/l	NC	30
Anthracene	ND	ND	ug/l	NC	30
Benzo(ghi)perylene	ND	ND	ug/l	NC	30
Fluorene	ND	ND	ug/l	NC	30
Phenanthrene	ND	ND	ug/l	NC	30
Dibenzo(a,h)anthracene	ND	ND	ug/l	NC	30
Indeno(1,2,3-cd)pyrene	ND	ND	ug/l	NC	30
Pyrene	ND	ND	ug/l	NC	30
n-Nitrosodimethylamine	ND	ND	ug/l	NC	30
2,4,6-Trichlorophenol	ND	ND	ug/l	NC	30
p-Chloro-m-cresol	ND	ND	ug/l	NC	30
2-Chlorophenol	ND	ND	ug/l	NC	30
2,4-Dichlorophenol	ND	ND	ug/l	NC	30
2,4-Dimethylphenol	ND	ND	ug/l	NC	30
2-Nitrophenol	ND	ND	ug/l	NC	30

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0705021

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
SVOC's by GC/MS 625 for sample(s) 01 (L0705023-01, WG276609-4)					
4-Nitrophenol	ND	ND	ug/l	NC	30
2,4-Dinitrophenol	ND	ND	ug/l	NC	30
4,6-Dinitro-o-cresol	ND	ND	ug/l	NC	30
Pentachlorophenol	ND	ND	ug/l	NC	30
Phenol	ND	ND	ug/l	NC	30
2-Methylphenol	ND	ND	ug/l	NC	30
3-Methylphenol/4-Methylphenol	ND	ND	ug/l	NC	30
Surrogate(s)	Recovery				QC Criteria
2-Fluorophenol	51.0	69.0	%		21-120
Phenol-d6	55.0	89.0	%		10-120
Nitrobenzene-d5	96.0	101	%		23-120
2-Fluorobiphenyl	85.0	79.0	%		43-120
2,4,6-Tribromophenol	95.0	92.0	%		10-120
4-Terphenyl-d14	100	97.0	%		33-120

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0705021

Parameter	% Recovery	QC Criteria
Cyanide, Total LCS for sample(s) 02 (WG276569-1)		
Cyanide, Total	96	90-110
Nitrogen, Ammonia LCS for sample(s) 01 (WG277441-2)		
Nitrogen, Ammonia	93	80-120
Phosphorus, Total LCS for sample(s) 01 (WG276945-2)		
Phosphorus, Total	103	85-115
Chemical Oxygen Demand LCS for sample(s) 01 (WG277477-2)		
Chemical Oxygen Demand	100	
BOD, 5 day LCS for sample(s) 01 (WG276496-2)		
BOD, 5 day	90	85-115
Oil & Grease, Hem-Grav LCS for sample(s) 02 (WG277544-2)		
Oil & Grease, Hem-Grav	88	78-114
Phenolics, Total LCS for sample(s) 02 (WG277864-2)		
Phenolics, Total	92	82-111
Total Metals LCS for sample(s) 01 (WG276648-4)		
Antimony, Total	95	
Arsenic, Total	98	
Beryllium, Total	102	
Cadmium, Total	101	
Chromium, Total	95	
Copper, Total	90	
Lead, Total	96	
Nickel, Total	94	
Selenium, Total	102	
Silver, Total	99	
Thallium, Total	97	
Zinc, Total	96	
Total Metals LCS for sample(s) 01 (WG277428-1)		
Mercury, Total	102	
Volatile Organics by GC/MS 624 LCS for sample(s) 02-03 (WG277103-3)		
Methylene chloride	97	10-221
1,1-Dichloroethane	111	59-155
Chloroform	120	51-138
Carbon tetrachloride	125	70-140
1,2-Dichloropropane	84	10-210
Dibromochloromethane	113	53-149
1,1,2-Trichloroethane	102	52-150
2-Chloroethylvinyl ether	70	10-305
Tetrachloroethene	101	64-148
Chlorobenzene	82	37-160

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0705021

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 624 LCS for sample(s) 02-03 (WG277103-3)		
Trichlorofluoromethane	160	17-181
1,2-Dichloroethane	129	49-155
1,1,1-Trichloroethane	119	52-162
Bromodichloromethane	115	35-155
trans-1,3-Dichloropropene	86	17-183
cis-1,3-Dichloropropene	83	10-227
Bromoform	96	45-169
1,1,2,2-Tetrachloroethane	99	46-157
Benzene	98	37-151
Toluene	94	47-150
Ethylbenzene	100	37-162
Chloromethane	146	10-273
Bromomethane	118	10-242
Vinyl chloride	159	10-251
Chloroethane	123	14-230
1,1-Dichloroethene	103	10-234
trans-1,2-Dichloroethene	100	54-156
cis-1,2-Dichloroethene	96	60-140
Trichloroethene	81	71-157
1,2-Dichlorobenzene	91	18-190
1,3-Dichlorobenzene	85	59-156
1,4-Dichlorobenzene	94	18-190
p/m-Xylene	100	40-160
o-Xylene	91	40-160
XYLENE (TOTAL)	97	40-160
Styrene	83	40-160
Acetone	132	40-160
Carbon disulfide	111	40-160
2-Butanone	116	40-160
Vinyl acetate	113	40-160
4-Methyl-2-pentanone	87	40-160
2-Hexanone	101	40-160
Acrolein	71	40-160
Acrylonitrile	116	40-160
Surrogate(s)		
Pentafluorobenzene	85	80-120
Fluorobenzene	97	80-120
4-Bromofluorobenzene	87	80-120
SVOC's by GC/MS 625 LCS for sample(s) 01 (WG276609-2)		
Acenaphthene	53	46-118
1,2,4-Trichlorobenzene	44	39-98
2-Chloronaphthalene	51	40-140
1,2-Dichlorobenzene	43	40-140
1,4-Dichlorobenzene	42	36-97
2,4-Dinitrotoluene	75	24-96
2,6-Dinitrotoluene	78	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0705021

Continued

Parameter	% Recovery	QC Criteria
SVOC's by GC/MS 625 LCS for sample(s) 01 (WG276609-2)		
Fluoranthene	83	40-140
4-Chlorophenyl phenyl ether	58	40-140
n-Nitrosodi-n-propylamine	43	41-116
Butyl benzyl phthalate	81	40-140
Anthracene	65	40-140
Pyrene	79	26-127
Hexachloropropene	42	40-140
P-Chloro-M-Cresol	59	23-97
2-Chlorophenol	46	27-123
2-Nitrophenol	52	30-130
4-Nitrophenol	34	10-80
2,4-Dinitrophenol	62	30-130
Pentachlorophenol	58	9-103
Phenol	21	12-110
Surrogate(s)		
2-Fluorophenol	32	21-120
Phenol-d6	30	10-120
Nitrobenzene-d5	56	23-120
2-Fluorobiphenyl	49	43-120
2,4,6-Tribromophenol	75	10-120
4-Terphenyl-d14	86	33-120
Cyanide, Total SPIKE for sample(s) 02 (L0705099-03, WG276569-3)		
Cyanide, Total	102	80-120
Nitrogen, Ammonia SPIKE for sample(s) 01 (L0705021-01, WG277441-3)		
Nitrogen, Ammonia	95	75-125
Phosphorus, Total SPIKE for sample(s) 01 (L0705052-06, WG276945-4)		
Phosphorus, Total	98	80-120
Chemical Oxygen Demand SPIKE for sample(s) 01 (L0705434-07, WG277477-3)		
Chemical Oxygen Demand	96	
BOD, 5 day SPIKE for sample(s) 01 (L0705048-02, WG276496-3)		
BOD, 5 day	110	50-145
Oil & Grease, Hem-Grav SPIKE for sample(s) 02 (L0704935-01, WG277544-3)		
Oil & Grease, Hem-Grav	89	78-114
Phenolics, Total SPIKE for sample(s) 02 (L0705161-02, WG277864-3)		
Phenolics, Total	94	77-124
Total Metals SPIKE for sample(s) 01 (L0704968-03, WG276648-2)		
Antimony, Total	96	
Arsenic, Total	98	
Beryllium, Total	99	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0705021

Continued

Parameter	% Recovery	QC Criteria
Total Metals SPIKE for sample(s) 01 (L0704968-03, WG276648-2)		
Cadmium, Total	98	
Chromium, Total	90	
Copper, Total	92	
Lead, Total	94	
Nickel, Total	91	
Selenium, Total	101	
Silver, Total	97	
Thallium, Total	96	
Zinc, Total	99	
Total Metals SPIKE for sample(s) 01 (L0705021-01, WG277428-2)		
Mercury, Total	118	
Volatile Organics by GC/MS 624 SPIKE for sample(s) 02-03 (L0705142-02, WG277103-1)		
Methylene chloride	98	10-221
1,1-Dichloroethane	115	59-155
Chloroform	120	51-138
Carbon tetrachloride	130	70-140
1,2-Dichloropropane	87	10-210
Dibromochloromethane	108	53-149
1,1,2-Trichloroethane	104	52-150
2-Chloroethylvinyl ether	62	10-305
Tetrachloroethene	100	64-148
Chlorobenzene	83	37-160
Trichlorofluoromethane	166	17-181
1,2-Dichloroethane	128	49-155
1,1,1-Trichloroethane	120	52-162
Bromodichloromethane	114	35-155
trans-1,3-Dichloropropene	57	17-183
cis-1,3-Dichloropropene	29	10-227
Bromoform	88	45-169
1,1,2,2-Tetrachloroethane	98	46-157
Benzene	103	35-151
Toluene	94	47-150
Ethylbenzene	104	37-162
Chloromethane	140	10-273
Bromomethane	43	10-242
Vinyl chloride	166	10-251
Chloroethane	127	14-230
1,1-Dichloroethene	102	10-234
trans-1,2-Dichloroethene	98	54-156
cis-1,2-Dichloroethene	96	60-140
Trichloroethene	83	71-157
1,2-Dichlorobenzene	93	18-190
1,3-Dichlorobenzene	86	59-156
1,4-Dichlorobenzene	94	18-190
p/m-Xylene	104	40-160
o-Xylene	94	40-160

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0705021

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 624 SPIKE for sample(s) 02-03 (L0705142-02, WG277103-1)		
XYLENE (TOTAL)	101	40-160
Styrene	88	40-160
Acetone	125	40-160
Carbon disulfide	99	40-160
2-Butanone	113	40-160
Vinyl acetate	101	40-160
4-Methyl-2-pentanone	86	40-160
2-Hexanone	95	40-160
Acrolein	3	40-160
Acrylonitrile	112	40-160
Surrogate(s)		
Pentafluorobenzene	90	80-120
Fluorobenzene	103	80-120
4-Bromofluorobenzene	93	80-120
SVOC's by GC/MS 625 SPIKE for sample(s) 01 (L0705023-01, WG276609-3)		
Acenaphthene	85	46-118
1,2,4-Trichlorobenzene	75	39-98
2-Chloronaphthalene	89	40-140
1,2-Dichlorobenzene	66	40-140
1,4-Dichlorobenzene	66	36-97
2,4-Dinitrotoluene	89	24-96
2,6-Dinitrotoluene	110	40-140
Fluoranthene	99	40-140
4-Chlorophenyl phenyl ether	89	40-140
n-Nitrosodi-n-propylamine	66	41-116
Butyl benzyl phthalate	100	40-140
Anthracene	75	40-140
Pyrene	94	26-127
Hexachloropropene	75	40-140
P-Chloro-M-Cresol	110	23-97
2-Chlorophenol	73	27-123
2-Nitrophenol	80	30-130
4-Nitrophenol	38	10-80
2,4-Dinitrophenol	85	30-130
Pentachlorophenol	78	9-103
Phenol	56	12-110
Surrogate(s)		
2-Fluorophenol	67	21-120
Phenol-d6	79	10-120
Nitrobenzene-d5	87	23-120
2-Fluorobiphenyl	80	43-120
2,4,6-Tribromophenol	97	10-120
4-Terphenyl-d14	105	33-120

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0705021

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG277050-1)								
Solids, Total Suspended	ND	mg/l	5.0	4	160.2		0417 15:20	DW
Blank Analysis for sample(s) 02 (WG276569-2)								
Cyanide, Total	ND	mg/l	0.005	4	335.2	0412 16:00	0412 21:28	DD
Blank Analysis for sample(s) 01 (WG277441-1)								
Nitrogen, Ammonia	ND	mg/l	0.400	44	350.2		0419 21:17	HG
Blank Analysis for sample(s) 01 (WG276945-1)								
Phosphorus, Total	ND	mg/l	0.01	4	365.2		0416 15:00	HS
Blank Analysis for sample(s) 01 (WG277477-1)								
Chemical Oxygen Demand	ND	mg/l	20	44	410.4		0420 11:30	DW
Blank Analysis for sample(s) 01 (WG276496-1)								
BOD, 5 day	ND	mg/l	2.0	4	405.1	0412 08:40	0417 15:55	DW
Blank Analysis for sample(s) 02 (WG277544-1)								
Oil & Grease, Hem-Grav	ND	mg/l	4.0	74	1664A	0420 09:45	0423 13:30	AT
Blank Analysis for sample(s) 02 (WG277864-1)								
Phenolics, Total	ND	mg/l	0.03	4	420.1		0424 09:45	AT
Blank Analysis for sample(s) 01 (WG276648-3)								
Total Metals				19	200.7			
Antimony, Total	ND	mg/l	0.050	19	200.7	0412 17:45	0413 10:38	MG
Arsenic, Total	ND	mg/l	0.005	19	200.7	0412 17:45	0413 10:38	MG
Beryllium, Total	ND	mg/l	0.005	19	200.7	0412 17:45	0413 10:38	MG
Cadmium, Total	ND	mg/l	0.005	19	200.7	0412 17:45	0413 10:38	MG
Chromium, Total	ND	mg/l	0.01	19	200.7	0412 17:45	0413 10:38	MG
Copper, Total	ND	mg/l	0.010	19	200.7	0412 17:45	0413 10:38	MG
Lead, Total	ND	mg/l	0.010	19	200.7	0412 17:45	0413 10:38	MG
Nickel, Total	ND	mg/l	0.025	19	200.7	0412 17:45	0413 10:38	MG
Selenium, Total	ND	mg/l	0.010	19	200.7	0412 17:45	0413 10:38	MG
Silver, Total	ND	mg/l	0.007	19	200.7	0412 17:45	0413 10:38	MG
Thallium, Total	ND	mg/l	0.020	19	200.7	0412 17:45	0413 10:38	MG
Zinc, Total	ND	mg/l	0.050	19	200.7	0412 17:45	0413 10:38	MG

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0705021

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG277428-4)								
Total Metals								
Mercury, Total	ND	mg/l	0.0002	4	245.2	0419 18:15	0420 14:59	HG
Blank Analysis for sample(s) 02-03 (WG277103-4)								
Volatile Organics by GC/MS 624				5	624		0416 08:37	MM
Methylene chloride	ND	ug/l	5.0					
1,1-Dichloroethane	ND	ug/l	1.5					
Chloroform	ND	ug/l	1.5					
Carbon tetrachloride	ND	ug/l	1.0					
1,2-Dichloropropane	ND	ug/l	3.5					
Dibromochloromethane	ND	ug/l	1.0					
1,1,2-Trichloroethane	ND	ug/l	1.5					
2-Chloroethylvinyl ether	ND	ug/l	10.					
Tetrachloroethene	ND	ug/l	1.5					
Chlorobenzene	ND	ug/l	3.5					
Trichlorofluoromethane	ND	ug/l	5.0					
1,2-Dichloroethane	ND	ug/l	1.5					
1,1,1-Trichloroethane	ND	ug/l	2.0					
Bromodichloromethane	ND	ug/l	1.0					
trans-1,3-Dichloropropene	ND	ug/l	1.5					
cis-1,3-Dichloropropene	ND	ug/l	1.5					
Bromoform	ND	ug/l	1.0					
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0					
Benzene	ND	ug/l	1.0					
Toluene	ND	ug/l	1.0					
Ethylbenzene	ND	ug/l	1.0					
Chloromethane	ND	ug/l	10.					
Bromomethane	ND	ug/l	5.0					
Vinyl chloride	ND	ug/l	2.0					
Chloroethane	ND	ug/l	2.0					
1,1-Dichloroethene	ND	ug/l	1.0					
trans-1,2-Dichloroethene	ND	ug/l	1.5					
cis-1,2-Dichloroethene	ND	ug/l	1.0					
Trichloroethene	ND	ug/l	1.0					
1,2-Dichlorobenzene	ND	ug/l	5.0					
1,3-Dichlorobenzene	ND	ug/l	5.0					
1,4-Dichlorobenzene	ND	ug/l	5.0					
p/m-Xylene	ND	ug/l	2.0					
o-xylene	ND	ug/l	1.0					
Xylene (Total)	ND	ug/l	2.0					
Styrene	ND	ug/l	1.0					
Acetone	ND	ug/l	10.					
Carbon disulfide	ND	ug/l	5.0					
2-Butanone	ND	ug/l	10.					
Vinyl acetate	ND	ug/l	20.					
4-Methyl-2-pentanone	ND	ug/l	10.					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0705021

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02-03 (WG277103-4)							
Volatile Organics by GC/MS 624 cont'd				5 624		0416 08:37	MM
2-Hexanone	ND	ug/l	10.				
Acrolein	ND	ug/l	8.0				
Acrylonitrile	ND	ug/l	10.				
Methyl tert butyl ether	ND	ug/l	20.				
1,4-Dioxane	ND	ug/l	2000				
Tert-Butyl Alcohol	ND	ug/l	100				
Tertiary-Amyl Methyl Ether	ND	ug/l	20.				
Surrogate(s)	Recovery		QC Criteria				
Pentafluorobenzene	87.0	%	80-120				
Fluorobenzene	100	%	80-120				
4-Bromofluorobenzene	95.0	%	80-120				
Blank Analysis for sample(s) 01 (WG276609-1)							
SVOC's by GC/MS 625				5 625	0412 19:30	0418 09:18	RL
Acenaphthene	ND	ug/l	5.0				
Benzidine	ND	ug/l	50.				
1,2,4-Trichlorobenzene	ND	ug/l	5.0				
Hexachlorobenzene	ND	ug/l	5.0				
Bis(2-chloroethyl)ether	ND	ug/l	5.0				
2-Chloronaphthalene	ND	ug/l	6.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
3,3'-Dichlorobenzidine	ND	ug/l	50.				
2,4-Dinitrotoluene	ND	ug/l	6.0				
2,6-Dinitrotoluene	ND	ug/l	5.0				
Azobenzene	ND	ug/l	5.0				
Fluoranthene	ND	ug/l	5.0				
4-Chlorophenyl phenyl ether	ND	ug/l	5.0				
4-Bromophenyl phenyl ether	ND	ug/l	5.0				
Bis(2-chloroisopropyl)ether	ND	ug/l	5.0				
Bis(2-chloroethoxy)methane	ND	ug/l	5.0				
Hexachlorobutadiene	ND	ug/l	10.				
Hexachlorocyclopentadiene	ND	ug/l	30.				
Hexachloroethane	ND	ug/l	5.0				
Isophorone	ND	ug/l	5.0				
Naphthalene	ND	ug/l	5.0				
Nitrobenzene	ND	ug/l	5.0				
NDPA/DPA	ND	ug/l	15.				
n-Nitrosodi-n-propylamine	ND	ug/l	5.0				
Bis(2-ethylhexyl)phthalate	ND	ug/l	5.0				
Butyl benzyl phthalate	ND	ug/l	5.0				
Di-n-butylphthalate	ND	ug/l	5.0				
Di-n-octylphthalate	ND	ug/l	5.0				
Diethyl phthalate	ND	ug/l	5.0				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0705021

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG276609-1)								
SVOC's by GC/MS 625 cont'd				5	625	0412 19:30	0418 09:18	RL
Dimethyl phthalate	ND	ug/l	5.0					
Benzo(a)anthracene	ND	ug/l	5.0					
Benzo(a)pyrene	ND	ug/l	5.0					
Benzo(b)fluoranthene	ND	ug/l	5.0					
Benzo(k)fluoranthene	ND	ug/l	5.0					
Chrysene	ND	ug/l	5.0					
Acenaphthylene	ND	ug/l	5.0					
Anthracene	ND	ug/l	5.0					
Benzo(ghi)perylene	ND	ug/l	5.0					
Fluorene	ND	ug/l	5.0					
Phenanthrene	ND	ug/l	5.0					
Dibenzo(a,h)anthracene	ND	ug/l	5.0					
Indeno(1,2,3-cd)pyrene	ND	ug/l	7.0					
Pyrene	ND	ug/l	5.0					
Aniline	ND	ug/l	20.					
4-Chloroaniline	ND	ug/l	5.0					
1-Methylnaphthalene	ND	ug/l	5.0					
2-Nitroaniline	ND	ug/l	5.0					
3-Nitroaniline	ND	ug/l	5.0					
4-Nitroaniline	ND	ug/l	7.0					
Dibenzofuran	ND	ug/l	5.0					
2-Methylnaphthalene	ND	ug/l	5.0					
n-Nitrosodimethylamine	ND	ug/l	50.					
2,4,6-Trichlorophenol	ND	ug/l	5.0					
p-Chloro-m-cresol	ND	ug/l	5.0					
2-Chlorophenol	ND	ug/l	6.0					
2,4-Dichlorophenol	ND	ug/l	10.					
2,4-Dimethylphenol	ND	ug/l	10.					
2-Nitrophenol	ND	ug/l	20.					
4-Nitrophenol	ND	ug/l	10.					
2,4-Dinitrophenol	ND	ug/l	30.					
4,6-Dinitro-o-cresol	ND	ug/l	20.					
Pentachlorophenol	ND	ug/l	10.					
Phenol	ND	ug/l	7.0					
2-Methylphenol	ND	ug/l	6.0					
3-Methylphenol/4-Methylphenol	ND	ug/l	6.0					
2,4,5-Trichlorophenol	ND	ug/l	5.0					
2,6-Dichlorophenol	ND	ug/l	10.					
Benzoic Acid	ND	ug/l	50.					
Benzyl Alcohol	ND	ug/l	10.					
Carbazole	ND	ug/l	5.0					

Surrogate(s)	Recovery		QC Criteria
2-Fluorophenol	37.0	%	21-120
Phenol-d6	33.0	%	10-120
Nitrobenzene-d5	63.0	%	23-120

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0705021

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG276609-1)								
SVOC's by GC/MS 625 cont'd				5	625	0412 19:30	0418 09:18	RL
2-Fluorobiphenyl	49.0	%	43-120					
2,4,6-Tribromophenol	70.0	%	10-120					
4-Terphenyl-d14	82.0	%	33-120					

REFERENCES

4. Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

5. Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).

19. Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

44. Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

74. Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 4/11/07

ALPHA Job #: L0705021

ALPHA ANALYTICAL LABS
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
RAYNHAM, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Rohm & Haas Elec Mat'
Address: 455 Forest St.
Marlborough MA.
Phone: (508) 229-7177
Fax: (508) 481-2752
Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Semi Annual (April)
Project Location: ATC-NS02
Project #:
Project Manager: Keith Lemaire
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 4/25/07 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY — CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
Refrig. <4°C During Collection, Storage, and Transport
X1 = Trip Blank TO ALPHA Refrig. Temp 40°F
TT0624

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Cd, Cr, Cu, Ni, Sb, As, Ba, Pb, Hg, Se, Ag, Tl, Zn	NH3	COD, TPhos	BOD5	TSS	TTO 625	Total Phenol	oil & Grease (Hex)	TCN	TTO 624	Trip Blank TTO	Sample Specific Comments
5021-01	A			E	K.L.	✓											Comp
	B			E	K.L.		✓										Comp
	C			E	K.L.			✓									Comp
	D			E	K.L.				✓								Comp
	E, F			F	K.L.					✓							Comp
-02	G			E	K.L.						✓						Grab
	H, I, J			E	K.L.							✓					Grab
	K, L			E	K.L.								✓				Grab
-03	M			X1	K.L.									✓	✓		

SAMPLE HANDLING

Filtration
☐ Done ☐ Not needed ☐ Lab to do
Preservation
☐ Lab to do (Please specify below)

TOTAL # BOTTLES

Container Type	P	P	P	P	A	A	A	P	V	V
Preservative	C	D	A	A	A	D	B	E	A	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By	Date/Time	Received By:	Date/Time
Keith Lemaire	4-16-07 1040		4/11/07 1040

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NC: 01-01 (rev. 10-OCT-05)

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com
MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Rohm & Haas

Address: 455 Forest Street

Marlboro, MA 01752

Attn: Mr. Keith LeMaire

Project Number:

Laboratory Job Number: L0713556

Date Received: 18-SEP-2007

Date Reported: 26-SEP-2007

Delivery Method: Client

Site: BOD & PHOS

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0713556-01	A-UHP JANITOR CLOSET	MULTIPLE LOCATIONS
L0713556-02	B-UHP JANITOR CLOSET	MULTIPLE LOCATIONS
L0713556-03	C-COL (MAINTANCE)	MULTIPLE LOCATIONS
L0713556-04	D-COL (MAINTANCE)	MULTIPLE LOCATIONS

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Michelle M. Morris
Technical Representative

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0713556

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

Total Phosphorus

L0713556-03 has an elevated detection limit due to 25x dilution required by the matrix of the sample.

BOD

L0713556-04 has an elevated detection limit due to the 50x dilution required by the elevated concentrations of BOD in the sample.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0713556-01
A-UHP JANITOR CLOSET
Sample Matrix: WATER

Date Collected: 18-SEP-2007 07:40
Date Received : 18-SEP-2007
Date Reported : 26-SEP-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
BOD, 5 day	ND	mg/l	2.0	30 5210B	0919 07:00	0924 15:30	DW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0713556-02
B-UHP JANITOR CLOSET
Sample Matrix: WATER

Date Collected: 18-SEP-2007 07:40
Date Received : 18-SEP-2007
Date Reported : 26-SEP-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Phosphorus, Total	0.02	mg/l	0.01	30 4500P-E		0925 14:55	HS

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0713556-03
C-COL (MAINTANCE)
Sample Matrix: WATER

Date Collected: 18-SEP-2007 07:40
Date Received : 18-SEP-2007
Date Reported : 26-SEP-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Phosphorus, Total	3.6	mg/l	0.25	30 4500P-E		0925 14:55	HS

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0713556-04
D-COL (MAINTANCE)
Sample Matrix: WATER

Date Collected: 18-SEP-2007 07:40
Date Received : 18-SEP-2007
Date Reported : 26-SEP-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
BOD, 5 day	590	mg/l	100	30 5210B	0919 07:00	0924 15:30	DW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0713556

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Phosphorus, Total for sample(s) 02-03 (L0713751-04, WG295475-3)					
Phosphorus, Total	0.36	0.37	mg/l	3	20
BOD, 5 day for sample(s) 01,04 (L0713562-01, WG294631-4)					
BOD, 5 day	16	13	mg/l	21	35

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0713556

Parameter	% Recovery	QC Criteria
Phosphorus, Total LCS for sample(s) 02-03 (WG295475-2)		
Phosphorus, Total	108	85-115
BOD, 5 day LCS for sample(s) 01,04 (WG294631-2)		
BOD, 5 day	95	85-115
Phosphorus, Total SPIKE for sample(s) 02-03 (L0713751-06, WG295475-4)		
Phosphorus, Total	98	80-120
BOD, 5 day SPIKE for sample(s) 01,04 (L0713601-01, WG294631-3)		
BOD, 5 day	95	50-145

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0713556

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02-03 (WG295475-1)							
Phosphorus, Total	ND	mg/l	0.01	30 4500P-E		0925 14:55	HS
Blank Analysis for sample(s) 01,04 (WG294631-1)							
BOD, 5 day	ND	mg/l	2.0	30 5210B	0919 07:00	0924 15:30	DW

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 9/18/07

ALPHA Job #: L0713556

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Rohm & Haas E.M.
Address: 455 Forest St.
Marlborough MA.
Phone: 508-229-7177
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: BOD & Phos.
Project Location: multiple locations
Project #:
Project Manager: Keith Lemaire
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 10/02/07 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY — CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
A - UHA Janitor Closet
B - UHA Janitor Closet
C - Col (maintance)
D - Col (maintance)

ANALYSIS: BOD5 | TPhos | TPhos | BOD5

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Sample Specific Comments
13556-01	A	9-18-07	0740	E	K.L.	
-02	B	9-18-07	0740	E	K.L.	
-03	C	9-18-07	0740	E	K.L.	
-04	D	9-18-07	0740	E	K.L.	

Container Type	P	P	P	P
Preservative	A	D	D	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Keith Lemaire	9-18-07 934		9/18/07 934

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 30-JUL-07)

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com
MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Rohm & Haas

Address: 455 Forest Street
Marlboro, MA 01752

Attn: Mr. Keith LeMaire

Project Number:

Site: BOD & PHOS

Laboratory Job Number: L0712402

Date Received: 28-AUG-2007

Date Reported: 04-SEP-2007

Delivery Method: Client

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0712402-01	A	C01 (MAINTENANCE)
L0712402-02	B	BATCH 0828073A
L0712402-03	C	C01 (MAINTENANCE)
L0712402-04	D	UHP (JANITOR)

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Michelle M. Morris
Technical Representative

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0712402

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

Sample Receipt

The samples were received at the laboratory above the required temperature range. The samples were transported to the laboratory in a cooler with blue ice and delivered directly from the sampling site.

BOD

The following samples have elevated detection limits due to the dilutions required by the elevated concentrations of BOD in the samples:

L0712402-03: 50x

L0712402-04: 100x

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0712402-01 A
Sample Matrix: WATER
Condition of Sample: Satisfactory
Number & Type of Containers: 1-Plastic

Date Collected: 28-AUG-2007 10:30
Date Received : 28-AUG-2007
Date Reported : 04-SEP-2007
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Phosphorus, Total	0.36	mg/l	0.01	30 4500P-E		0828 19:00	HS

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0712402-02
B
Sample Matrix: WATER

Date Collected: 28-AUG-2007 10:30
Date Received : 28-AUG-2007
Date Reported : 04-SEP-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Phosphorus, Total	0.02	mg/l	0.01	30 4500P-E		0828 19:00	HS

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0712402-03 C
Sample Matrix: WATER

Condition of Sample: Satisfactory

Number & Type of Containers: 1-Plastic

Date Collected: 28-AUG-2007 10:30
Date Received : 28-AUG-2007
Date Reported : 04-SEP-2007

Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
BOD, 5 day	350	mg/l	100	30 5210B	0829 11:35	0903 09:45	DW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0712402-04 D
Sample Matrix: WATER

Date Collected: 28-AUG-2007 10:30
Date Received : 28-AUG-2007
Date Reported : 04-SEP-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
BOD, 5 day	960	mg/l	200	30 5210B	0829 11:35	0903 09:45	DW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0712402

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Phosphorus, Total for sample(s) 01-02 (L0712133-02, WG292145-3)					
Phosphorus, Total	0.12	0.12	mg/l	0	20
BOD, 5 day for sample(s) 03-04 (L0712398-03, WG292326-3)					
BOD, 5 day	380	490	mg/l	25	35

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0712402

Parameter	% Recovery	QC Criteria
Phosphorus, Total LCS for sample(s) 01-02 (WG292145-2)		
Phosphorus, Total	106	85-115
BOD, 5 day LCS for sample(s) 03-04 (WG292326-2)		
BOD, 5 day	108	85-115
Phosphorus, Total SPIKE for sample(s) 01-02 (L0712398-01, WG292145-4)		
Phosphorus, Total	99	80-120
BOD, 5 day SPIKE for sample(s) 03-04 (L0712398-04, WG292326-4)		
BOD, 5 day	156	50-145

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0712402

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG292145-1)							
Phosphorus, Total	ND	mg/l	0.01	30 4500P-E		0828 19:00	HS
Blank Analysis for sample(s) 03-04 (WG292326-1)							
BOD, 5 day	ND	mg/l	2.0	30 5210B	0829 11:35	0903 09:45	DW

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 8/28/07

ALPHA Job #: L0712402

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Rohm & Haas E.M.
Address: 455 Forest St.
Marlborough MA
Phone: 508-229-7177
Fax:
Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: BOD & Phos.
Project Location: Multiple locs
Project #:
Project Manager:
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: 9/12/07 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY -- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

A = Col (maintance) D = UHP (Janitor)
B = Batch 082807 SA
C = Col (maintance)

SAMPLE HANDLING

Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TPhos	TPhos	BOD 5	BOD 5	TOTAL # BOTTLES	Sample Specific Comments
12402-01	A	8-28-07	1030	E	KL	✓					Col (maintance)
-02	B	8-28-07	1030	E	KL		✓				Batch 082807 SA
-03	C	8-28-07	1030	E	KL			✓			Col (maintance)
-04	D	8-28-07	1030	E	KL				✓		UHP (Janitor)

Container Type	P	P	P	P
Preservative	D	D	A	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Keith LaMaire	82807 1133	T. Facey	8/28/07 1:37

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 30-JUL-07)

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Rohm & Haas

Address: 455 Forest Street
Marlboro, MA 01752

Attn: Mr. Keith LeMaire

Project Number:

Site: BOD,NH3,TPHOS

Laboratory Job Number: L0616102

Date Received: 08-NOV-2006

Date Reported: 22-NOV-2006

Delivery Method: Client

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0616102-01	A&B-MAINT.	MAINT/POST TREAT
L0616102-02	C&D-POST	MAINT/POST TREAT

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: _____
Technical Director

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0616102

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

BOD

L0616102-02: The sample could not be de-chlorinated and therefore could not be analyzed.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0616102-01
A&B-MAINT.
Sample Matrix: WATER

Date Collected: 08-NOV-2006 09:00
Date Received : 08-NOV-2006
Date Reported : 22-NOV-2006

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Plastic

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Nitrogen, Ammonia	13.8	mg/l	0.075	44	350.1	1115 18:50	1116 14:38	AT
Phosphorus, Total	5.3	mg/l	0.25	4	365.2		1113 15:00	HS
BOD, 5 day	170	mg/l	50	4	405.1	1109 12:50	1114 15:25	DW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0616102-02
C&D-POST
Sample Matrix: WATER

Date Collected: 08-NOV-2006 09:00
Date Received : 08-NOV-2006
Date Reported : 22-NOV-2006

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Nitrogen, Ammonia	27.6	mg/l	0.075	44 350.1	1115 18:50	1116 14:39	AT
Phosphorus, Total	18	mg/l	0.50	4 365.2		1113 15:00	MS

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0616102

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Nitrogen, Ammonia for sample(s) 01-02 (L0616449-01, WG260899-4)					
Nitrogen, Ammonia	6.90	6.89	mg/l	0	
Phosphorus, Total for sample(s) 01-02 (L0616109-06, WG260506-3)					
Phosphorus, Total	0.10	0.10	mg/l	0	20
BOD, 5 day for sample(s) 01 (L0616096-01, WG260107-4)					
BOD, 5 day	150	150	mg/l	0	35

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0616102

Parameter	% Recovery	QC Criteria
Nitrogen, Ammonia LCS for sample(s) 01-02 (WG260899-2)		
Nitrogen, Ammonia	92	
Phosphorus, Total LCS for sample(s) 01-02 (WG260506-2)		
Phosphorus, Total	101	85-115
BOD, 5 day LCS for sample(s) 01 (WG260107-2)		
BOD, 5 day	104	85-115
Nitrogen, Ammonia SPIKE for sample(s) 01-02 (L0616449-03, WG260899-3)		
Nitrogen, Ammonia	78	
Phosphorus, Total SPIKE for sample(s) 01-02 (L0616036-01, WG260506-4)		
Phosphorus, Total	99	80-120
BOD, 5 day SPIKE for sample(s) 01 (L0616096-02, WG260107-3)		
BOD, 5 day	122	50-145

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0616102

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG260899-1)								
Nitrogen, Ammonia	ND	mg/l	0.075	44	350.1	1115 18:50	1116 14:32	AT
Blank Analysis for sample(s) 01-02 (WG260506-1)								
Phosphorus, Total	ND	mg/l	0.01	4	365.2		1113 15:00	HS
Blank Analysis for sample(s) 01 (WG260107-1)								
BOD, 5 day	ND	mg/l	2.0	4	405.1	1109 12:50	1114 15:25	DW

REFERENCES

4. Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

44. Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 11/8/06

ALPHA Job #: L0616102

ALPHA WOODS HOLE LABS
WESTBORO, MA TEL. 508-898-9220 FAX. 508-898-9193
RAYNHAM, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Rohm & Haas Elec. Mat

Address: 456 Forest St. Marlborough MA.

Phone: 508-229-7127

Fax: 508-481-2752

Email:

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:
Refrig. ≤4 °C During Collection, storage, and Transfer To ALPHA
Container C Weeks Pre Neutralization Refrig. Temp 40 °F

Project Information

Project Name: BOD, NH3, TPhos

Project Location: maint. / Post Treat

Project #:

Project Manager: Ken Lemaire

ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: 11/22/06 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #: 4500628375

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: NH3 / TPhos	BOD	BOD	NH3 / TPhos	Sample Specific Comments	TOTAL # BOTTLES
6102.1	A - maint.	11-8-06	0900	E	KL	✓				Comp	
.1	B - maint.	11-8-06	0900	E	KL		✓			Comp	
.2	C - Post	11-8-06	0900	E	KL			✓		Comp	
.2	D. - Post	11-8-06	0900	E	KL				✓	Comp	

	NH3 / TPhos	BOD	BOD	NH3 / TPhos
Container Type	P	P	P	P
Preservative	D	A	A	D

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Ken Lemaire	11-8-06 1125	[signature]	11-8-06 1125

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 10-OCT-05)

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com
MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Rohm & Haas

Address: 455 Forest Street
Marlboro, MA 01752

Attn: Mr. Keith LeMaire

Project Number:

Laboratory Job Number: L0718426

Date Received: 12-DEC-2007

Date Reported: 17-DEC-2007

Delivery Method: Client

Site: FORMALDEHYDE

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0718426-01	A	CBT
L0718426-02	B	CBT
L0718426-03	C	CBT
L0718426-04	D	CBT

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: _____

Technical Director

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0718426

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

Sample Receipt

The samples were received at the laboratory above the required temperature range. The samples were delivered directly from the sampling site but were not on ice.

Formaldehyde

The following samples have elevated limit of detection due to the dilutions required for the sample to quantitate within the calibration curve.

L0718426-01 and -02: 2500x

L0718426-03: 625x

L0718426-04: 25x

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0718426-01 A
Sample Matrix: WATER
Condition of Sample: Satisfactory
Number & Type of Containers: 1-Amber

Date Collected: 11-DEC-2007 11:00
Date Received : 12-DEC-2007
Date Reported : 17-DEC-2007
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Formaldehyde by EPA 8315A								
Formaldehyde	5900	mg/l	250	1	8315A	1212 15:00	1214 12:42	HS

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0718426-02 B
Sample Matrix: WATER

Date Collected: 11-DEC-2007 10:00
Date Received : 12-DEC-2007
Date Reported : 17-DEC-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Formaldehyde by EPA 8315A								
Formaldehyde	4820	mg/l	250	1	8315A	1212 15:00	1214 01:27	HS

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0718426-03 C
Sample Matrix: WATER
Condition of Sample: Satisfactory
Number & Type of Containers: 1-Amber

Date Collected: 12-DEC-2007 07:00
Date Received : 12-DEC-2007
Date Reported : 17-DEC-2007
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Formaldehyde by EPA 8315A								
Formaldehyde	3620	mg/l	62.5	1	8315A	1212 15:00	1212 18:50	HS

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0718426-04 D
Sample Matrix: WATER

Date Collected: 12-DEC-2007 07:00
Date Received : 12-DEC-2007
Date Reported : 17-DEC-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Formaldehyde by EPA 8315A								
Formaldehyde	122	mg/l	2.50	1	8315A	1212 15:00	1214 04:28	HS

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0718426

Parameter	% Recovery	QC Criteria
Formaldehyde by EPA 8315A LCS for sample(s) 01-04 (WG305562-2)		
Formaldehyde	72	39-153

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0718426

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Formaldehyde by EPA 8315A for sample(s) 01-04 (L0718319-08, WG305562-4)					
Formaldehyde	54	66	20	40	39-153

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0718426

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-04 (WG305562-1)								
Formaldehyde by EPA 8315A								
Formaldehyde	ND	mg/l	0.100	1	8315A	1212 15:00	1212 21:51	HS

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 12/12/07

ALPHA Job #: L0718426

ALPHA ANALYTICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193

MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Rohm+Haas E.M.

Address: 455 Forest St
Marlboro MA

Phone: 508-229-7177

Fax:

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Formaldhyde

Project Location: CBT

Project #:

Project Manager: Keith LeMaire

ALPHA Quote #:

Turn-Around Time

☐ Standard ☑ RUSH (only confirmed if pre-approved!)

Date Due: 12-17 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY — CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Recuirements/Comments/Detection Limits:

Samples A+B Contain mixed Acids with Copper (HCl & Nitric Acid) (Please E-mail Results To Sandra Croce & Keith LeMaire)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: Form.	Form.	Form.	Form.	Sample Specific Comments
18426-01	A	12-11-07	1100	E	KL	✓				Line-2 12-11-07
-02	B	12-11-07	1600	E	KL	✓				Line-2 12-11-07
-03	C	12-12-07	0700	E	KL		✓			Copy 1ST Rinse
-04	D	12-12-07	0700	E	KL			✓		Copy 2nd Rinse

SAMPLE HANDLING

Filtration
☐ Done
☐ Not needed
☐ Lab to do

Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

Container Type	A	A	A	A
Preservative	A	A	A	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Keith LeMaire	12/12-07 1005		12/12-07 1005

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 30-JUL-07)

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com
MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Rohm & Haas

Address: 455 Forest Street
Marlboro, MA 01752

Attn: Mr. Keith LeMaire

Project Number:

Laboratory Job Number: L0717532

Date Received: 27-NOV-2007

Date Reported: 04-DEC-2007

Delivery Method: Client

Site: BOD & COD

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0717532-01	A&B	UHP JANITOR CLOSET
L0717532-02	C&D	C01 MAINTENANCE

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Michelle M. Morris
Technical Representative

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0717532

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

Sample Receipt

The samples were received at the laboratory above the required temperature range. The samples were transported to the laboratory in a cooler with ice and delivered directly from the sampling site.

BOD

L0717532-02 has an elevated detection limit due to the 50x dilution required for analysis of higher BOD concentrations.

The WG303591-2 LCS % recovery is above the acceptance criteria for the method. The batch cannot be re-analyzed due to expired sample hold time. Therefore, the data is reported.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0717532-01
A&B
Sample Matrix: WATER

Date Collected: 27-NOV-2007 09:30
Date Received : 27-NOV-2007
Date Reported : 04-DEC-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Chemical Oxygen Demand	21	mg/l	20	44 410.4		1130 10:15	DW
BOD, 5 day	ND	mg/l	2.0	30 5210B	1128 10:30	1203 13:25	DW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0717532-02
C&D
Sample Matrix: WATER

Date Collected: 27-NOV-2007 09:30
Date Received : 27-NOV-2007
Date Reported : 04-DEC-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Chemical Oxygen Demand	250	mg/l	20	44 410.4		1130 10:15	DW
BOD, 5 day	430	mg/l	100	30 5210B	1128 10:30	1203 13:25	DW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0717532

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Chemical Oxygen Demand for sample(s) 01-02 (L0717672-01, WG303897-4)					
Chemical Oxygen Demand	23	30	mg/l	26	20
BOD, 5 day for sample(s) 01-02 (L0717532-02, WG303591-4)					
BOD, 5 day	430	390	mg/l	10	35

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0717532

Parameter	% Recovery	QC Criteria
Chemical Oxygen Demand LCS for sample(s) 01-02 (WG303897-2)		
Chemical Oxygen Demand	100	95-105
BOD, 5 day LCS for sample(s) 01-02 (WG303591-2)		
BOD, 5 day	118	85-115
Chemical Oxygen Demand SPIKE for sample(s) 01-02 (L0717672-01, WG303897-3)		
Chemical Oxygen Demand	98	80-120
BOD, 5 day SPIKE for sample(s) 01-02 (L0717532-01, WG303591-3)		
BOD, 5 day	123	50-145

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0717532

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG303897-1)							
Chemical Oxygen Demand	ND	mg/l	20.	44 410.4		1130 10:15	DW
Blank Analysis for sample(s) 01-02 (WG303591-1)							
BOD, 5 day	ND	mg/l	2.0	30 5210B	1128 10:30	1203 13:25	DW

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

44. Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

CHAIN OF CUSTODY

PAGE ____ OF ____

ALPHA
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
RAYNHAM, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 11/27/07

ALPHA Job #: L0717532

Client Information

Client: Rohm & Haas Elm.
Address: 455 Forest St.
Marlborough MA
Phone: (508) 229-7177
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: BOD & COD
Project Location: Multiple Locations
Project #:
Project Manager: Keith Lemaire
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 12/11/07 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY — CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
A = UHP Janitor Closet D = Col maintenance
B = UHP Janitor Closet
C = Col maintenance

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	BOD 5	COD	BOD 5	COD	SAMPLE HANDLING Filtration ☐ Done ☐ Not needed ☐ Lab to do Preservation ☐ Lab to do (Please specify below)	TOTAL # BOTTLES	Sample Specific Comments
17532-01	A	11-27-07	0930	E	KL	✓						UHP Janitor Closet
	B	11-27-07	0930	E	KL		✓					UHP Janitor Closet
-02	C	11-27-07	0930	E	KL			✓				Col Maintenance
	D	11-27-07	0930	E	KL				✓			Col maintenance

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Container Type	P	P	P	P
Preservative	A	D	A	D

Relinquished By:	Date/Time	Received By:	Date/Time
Keith Lemaire	11-27-07 1105	T. Feeley	11/27/07 1105

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 10-OCT-05)

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com
MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Rohm & Haas

Address: 455 Forest Street
Marlboro, MA 01752

Attn: Mr. Keith LeMaire

Project Number:

Laboratory Job Number: L0715972

Date Received: 25-OCT-2007

Date Reported: 08-NOV-2007

Delivery Method: Client

Site: QUARTERLY (4TH)

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0715972-01	COMP	S01 OUTFALL
L0715972-02	GRAB	S01 OUTFALL

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Paul L. Watson
Technical Representative

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0715972

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

Sample Receipt

The samples were received at the laboratory above the required temperature range. The samples were delivered directly from the sampling site but were not on ice.

BOD

L0715972-01 has an elevated detection limit due to the 25x dilution required for analysis of higher BOD concentrations.

Total Phosphorus

L0715972-01 has an elevated limit of detection due to the 10x dilutions required for the sample to fall within the calibration curve.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0715972-01
COMP
Sample Matrix: WATER

Date Collected: 25-OCT-2007 08:00
Date Received : 25-OCT-2007
Date Reported : 08-NOV-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 4-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total Suspended	34	mg/l	5.0	30 2540D		1029 17:00	DW
Nitrogen, Ammonia	14.6	mg/l	0.400	30 4500NH3-BE		1105 11:55	JL
Phosphorus, Total	2.1	mg/l	0.10	30 4500P-E		1031 15:30	HS
Chemical Oxygen Demand	160	mg/l	20	44 410.4		1106 11:00	DW
BOD, 5 day	150	mg/l	50	30 5210B	1026 14:20	1031 17:50	DW
Total Metals				19 200.7			
Aluminum, Total	ND	mg/l	0.10	19 200.7	1107 17:30	1108 13:22	MG
Antimony, Total	ND	mg/l	0.050	19 200.7	1107 17:30	1108 13:22	MG
Arsenic, Total	ND	mg/l	0.005	19 200.7	1107 17:30	1108 13:22	MG
Beryllium, Total	ND	mg/l	0.005	19 200.7	1107 17:30	1108 13:22	MG
Cadmium, Total	ND	mg/l	0.005	19 200.7	1107 17:30	1108 13:22	MG
Chromium, Total	ND	mg/l	0.01	19 200.7	1107 17:30	1108 13:22	MG
Copper, Total	0.057	mg/l	0.010	19 200.7	1107 17:30	1108 13:22	MG
Lead, Total	ND	mg/l	0.010	19 200.7	1107 17:30	1108 13:22	MG
Mercury, Total	ND	mg/l	0.0002	3 245.1	1106 18:30	1107 13:02	RC
Nickel, Total	ND	mg/l	0.025	19 200.7	1107 17:30	1108 13:22	MG
Selenium, Total	ND	mg/l	0.010	19 200.7	1107 17:30	1108 13:22	MG
Silver, Total	ND	mg/l	0.007	19 200.7	1107 17:30	1108 15:33	AI
Thallium, Total	ND	mg/l	0.020	19 200.7	1107 17:30	1108 13:22	MG
Zinc, Total	0.056	mg/l	0.050	19 200.7	1107 17:30	1108 13:22	MG

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0715972-02
GRAB
Sample Matrix: WATER

Date Collected: 25-OCT-2007 08:00
Date Received : 25-OCT-2007
Date Reported : 08-NOV-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 3-Amber,1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Cyanide, Total	ND	mg/l	0.005	30	4500CN-CE	1029 14:20	1030 13:02	AT
Oil & Grease, Hem-Grav	13	mg/l	4.4	74	1664A	1105 09:00	1106 11:45	AT
Phenolics, Total	ND	mg/l	0.03	4	420.1		1030 18:00	TH

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0715972

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total Suspended for sample(s) 01 (L0715961-01, WG299965-2)					
Solids, Total Suspended	510	530	mg/l	4	32
Cyanide, Total for sample(s) 02 (L0715798-01, WG300039-3)					
Cyanide, Total	ND	ND	mg/l	NC	
Nitrogen, Ammonia for sample(s) 01 (L0715961-01, WG300893-3)					
Nitrogen, Ammonia	91.4	91.0	mg/l	0	20
Phosphorus, Total for sample(s) 01 (L0716246-04, WG300416-3)					
Phosphorus, Total	0.40	0.39	mg/l	3	20
Chemical Oxygen Demand for sample(s) 01 (L0715974-01, WG301089-4)					
Chemical Oxygen Demand	30000	29000	mg/l	3	20
BOD, 5 day for sample(s) 01 (L0715973-01, WG299832-3)					
BOD, 5 day	130	120	mg/l	8	35
Oil & Grease, Hem-Grav for sample(s) 02 (L0716275-01, WG300971-4)					
Oil & Grease, Hem-Grav	41	44	mg/l	7	18
Phenolics, Total for sample(s) 02 (L0715914-01, WG300260-4)					
Phenolics, Total	ND	ND	mg/l	NC	12
Total Metals for sample(s) 01 (L0715981-01, WG301344-1)					
Arsenic, Total	ND	ND	mg/l	NC	
Cadmium, Total	ND	ND	mg/l	NC	
Chromium, Total	ND	ND	mg/l	NC	
Copper, Total	0.176	0.174	mg/l	1	
Lead, Total	0.020	0.021	mg/l	3	
Nickel, Total	0.506	0.497	mg/l	2	
Silver, Total	0.010	0.011	mg/l	3	
Zinc, Total	ND	ND	mg/l	NC	
Total Metals for sample(s) 01 (L0715879-01, WG301147-3)					
Mercury, Total	ND	ND	mg/l	NC	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0715972

Parameter	% Recovery	QC Criteria
Cyanide, Total LCS for sample(s) 02 (WG300039-2)		
Cyanide, Total	106	
Nitrogen, Ammonia LCS for sample(s) 01 (WG300893-2)		
Nitrogen, Ammonia	88	80-120
Phosphorus, Total LCS for sample(s) 01 (WG300416-2)		
Phosphorus, Total	105	85-115
Chemical Oxygen Demand LCS for sample(s) 01 (WG301089-2)		
Chemical Oxygen Demand	96	95-105
BOD, 5 day LCS for sample(s) 01 (WG299832-2)		
BOD, 5 day	101	85-115
Oil & Grease, Hem-Grav LCS for sample(s) 02 (WG300971-2)		
Oil & Grease, Hem-Grav	92	78-114
Phenolics, Total LCS for sample(s) 02 (WG300260-2)		
Phenolics, Total	82	82-111
Total Metals LCS for sample(s) 01 (WG301344-4)		
Aluminum, Total	100	
Antimony, Total	102	
Arsenic, Total	109	
Beryllium, Total	105	
Cadmium, Total	110	
Chromium, Total	100	
Copper, Total	97	
Lead, Total	100	
Nickel, Total	97	
Selenium, Total	111	
Silver, Total	91	
Thallium, Total	106	
Zinc, Total	102	
Total Metals LCS for sample(s) 01 (WG301147-1)		
Mercury, Total	98	
Cyanide, Total SPIKE for sample(s) 02 (L0715803-02, WG300039-4)		
Cyanide, Total	100	
Nitrogen, Ammonia SPIKE for sample(s) 01 (L0715972-01, WG300893-4)		
Nitrogen, Ammonia	93	75-125
Phosphorus, Total SPIKE for sample(s) 01 (L0716246-06, WG300416-4)		
Phosphorus, Total	101	80-120

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0715972

Continued

Parameter	% Recovery	QC Criteria
Chemical Oxygen Demand SPIKE for sample(s) 01 (L0715974-01, WG301089-3)		
Chemical Oxygen Demand	81	80-120
BOD, 5 day SPIKE for sample(s) 01 (L0715959-01, WG299832-4)		
BOD, 5 day	112	50-145
Oil & Grease, Hem-Grav SPIKE for sample(s) 02 (L0716277-02, WG300971-3)		
Oil & Grease, Hem-Grav	84	78-114
Phenolics, Total SPIKE for sample(s) 02 (L0715914-01, WG300260-3)		
Phenolics, Total	90	77-124
Total Metals SPIKE for sample(s) 01 (L0715981-01, WG301344-2)		
Aluminum, Total	95	
Antimony, Total	102	
Arsenic, Total	111	
Beryllium, Total	100	
Cadmium, Total	104	
Chromium, Total	95	
Copper, Total	94	
Lead, Total	98	
Nickel, Total	91	
Selenium, Total	108	
Silver, Total	88	
Thallium, Total	101	
Zinc, Total	104	
Total Metals SPIKE for sample(s) 01 (L0715879-01, WG301147-2)		
Mercury, Total	118	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0715972

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG299965-1)								
Solids, Total Suspended	ND	mg/l	5.0	30	2540D		1029 17:00	DW
Blank Analysis for sample(s) 02 (WG300039-1)								
Cyanide, Total	ND	mg/l	0.005	30	4500CN-CE	1029 14:20	1030 13:01	AT
Blank Analysis for sample(s) 01 (WG300893-1)								
Nitrogen, Ammonia	ND	mg/l	0.400	30	4500NH3-BF		1105 14:32	JL
Blank Analysis for sample(s) 01 (WG300416-1)								
Phosphorus, Total	ND	mg/l	0.01	30	4500P-E		1031 15:30	HS
Blank Analysis for sample(s) 01 (WG301089-1)								
Chemical Oxygen Demand	ND	mg/l	20.	44	410.4		1106 11:00	DW
Blank Analysis for sample(s) 01 (WG299832-1)								
BOD, 5 day	ND	mg/l	2.0	30	5210B	1026 14:20	1031 17:50	DW
Blank Analysis for sample(s) 02 (WG300971-1)								
Oil & Grease, Hem-Grav	ND	mg/l	4.0	74	1664A	1105 09:00	1106 11:45	AT
Blank Analysis for sample(s) 02 (WG300260-1)								
Phenolics, Total	ND	mg/l	0.03	4	420.1		1030 18:00	TH
Blank Analysis for sample(s) 01 (WG301344-3)								
Total Metals				19	200.7			
Aluminum, Total	ND	mg/l	0.10	19	200.7	1107 17:30	1108 12:53	MG
Antimony, Total	ND	mg/l	0.050	19	200.7	1107 17:30	1108 12:53	MG
Arsenic, Total	ND	mg/l	0.005	19	200.7	1107 17:30	1108 12:53	MG
Beryllium, Total	ND	mg/l	0.005	19	200.7	1107 17:30	1108 12:53	MG
Cadmium, Total	ND	mg/l	0.005	19	200.7	1107 17:30	1108 12:53	MG
Chromium, Total	ND	mg/l	0.01	19	200.7	1107 17:30	1108 12:53	MG
Copper, Total	ND	mg/l	0.005	19	200.7	1107 17:30	1108 12:53	MG
Lead, Total	ND	mg/l	0.010	19	200.7	1107 17:30	1108 12:53	MG
Nickel, Total	ND	mg/l	0.025	19	200.7	1107 17:30	1108 12:53	MG
Selenium, Total	ND	mg/l	0.010	19	200.7	1107 17:30	1108 12:53	MG
Silver, Total	ND	mg/l	0.007	19	200.7	1107 17:30	1108 16:14	AT
Thallium, Total	ND	mg/l	0.020	19	200.7	1107 17:30	1108 12:53	MG
Zinc, Total	ND	mg/l	0.050	19	200.7	1107 17:30	1108 12:53	MG

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0715972

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG301147-4)								
Total Metals								
Mercury, Total	ND	mg/l	0.0002	3	245.1	1106 18:30	1107 12:37	RC

REFERENCES

3. Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

4. Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

19. Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

44. Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

74. Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

MANSFIELD, MA
TEL: 508-822-9300
FAX: 508-822-3288

Date Rec'd in Lab: 10/25/07

ALPHA Job #: L0715972

Client Information

Client: Rohm & Haas Elec. Mat.
Address: 455 Forest St.
Marlborough MA
Phone: (508) 229-7177
Fax: (508) 481-2755
Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Quarterly (4th)
Project Location: Sol outfall
Project #:
Project Manager: Keith Lemaire
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

Refrig. <4°C During Collection, storage and Transfer To ALPHA

Refrigeration Temp 40°F

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TPP13+Al	TSS	NH3, COD, TPhos	BOD5	TCN	Total Phenol	Oil & Grease	Sample Specific Comments	TOTAL # BOTTLES
5972.1	A	10-25-07	0800	E	KL	✓							Comp	
1	B	10-25-07	0800	E	KL		✓						Comp	
1	C	10-25-07	0800	E	KL			✓					Comp	
1	D	10-25-07	0800	E	KL				✓				Comp	
2	E	10-25-07	0800	E	KL					✓			Grab	
2	E	10-25-07	0800	E	KL						✓		Grab	
2	G & H	10-25-07	0800	E	KL							✓	Grab	

Container Type	P	P	P	P	P	A	A
Preservative	C	A	D	A	E	D	D

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Keith Lemaire	10-25-07 11:56	I. F. Kelley	10/25/07 1156

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 30-JUL-07)

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Rohm & Haas

Address: 455 Forest Street

Marlboro, MA 01752

Attn: Mr. Keith LeMaire

Project Number:

Site: QUARTERLY (3RD)

Laboratory Job Number: L0710204

Date Received: 18-JUL-2007

Date Reported: 31-JUL-2007

Delivery Method: Client

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0710204-01	A-D COMPOSITE	S01 OUTALL
L0710204-02	E-H GRAB	S01 OUTALL

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: _____
Technical Director

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0710204

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

Sample Receipt

The samples were received at the laboratory above the required temperature range. The samples were transported to the laboratory in a cooler with ice and delivered directly from the sampling site.

BOD

L0710204-01 has an elevated detection limit due to the 25x dilution required by the elevated concentration of BOD in the sample.

Total Phosphorus

L0710204-01 has an elevated detection limit due to the 5x dilution required for the sample to fall within the calibration curve.

Ammonia

A matrix spike was not performed due to laboratory error.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0710204-01
A-D COMPOSITE
Sample Matrix: WATER

Date Collected: 18-JUL-2007 09:00
Date Received : 18-JUL-2007
Date Reported : 31-JUL-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 4-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total Suspended	32	mg/l	5.0	30 2540D		0723 14:00	ST
Nitrogen, Ammonia	18.3	mg/l	0.400	30 4500NH3-BE		0730 17:59	TV
Phosphorus, Total	3.0	mg/l	0.05	30 4500P-E		0724 15:00	HS
Chemical Oxygen Demand	260	mg/l	20	44 410.4		0723 14:00	HG
BOD, 5 day	240	mg/l	50	30 5210B	0719 15:20	0724 13:30	HS
Total Metals				19 200.7			
Aluminum, Total	0.11	mg/l	0.10	19 200.7	0720 16:30	0724 16:50	AI
Antimony, Total	ND	mg/l	0.050	19 200.7	0720 16:30	0724 16:50	AI
Arsenic, Total	ND	mg/l	0.005	19 200.7	0720 16:30	0724 16:50	AI
Beryllium, Total	ND	mg/l	0.005	19 200.7	0720 16:30	0724 16:50	AI
Cadmium, Total	ND	mg/l	0.005	19 200.7	0720 16:30	0724 16:50	AI
Chromium, Total	ND	mg/l	0.01	19 200.7	0720 16:30	0724 16:50	AI
Copper, Total	0.047	mg/l	0.010	19 200.7	0720 16:30	0724 16:50	AI
Lead, Total	ND	mg/l	0.010	19 200.7	0720 16:30	0724 16:50	AI
Mercury, Total	ND	mg/l	0.0002	3 245.1	0723 16:35	0724 09:41	DM
Nickel, Total	ND	mg/l	0.025	19 200.7	0720 16:30	0724 16:50	AI
Selenium, Total	ND	mg/l	0.010	19 200.7	0720 16:30	0724 16:50	AI
Silver, Total	ND	mg/l	0.007	19 200.7	0720 16:30	0724 16:50	AI
Thallium, Total	ND	mg/l	0.020	19 200.7	0720 16:30	0724 16:50	AI
Zinc, Total	ND	mg/l	0.050	19 200.7	0720 16:30	0724 16:50	AI

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0710204-02
E-H GRAB
Sample Matrix: WATER

Date Collected: 18-JUL-2007 09:00
Date Received : 18-JUL-2007
Date Reported : 31-JUL-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 3-Amber,1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Cyanide, Total	ND	mg/l	0.005	30 4500CN-CE	0724 15:55	0725 17:41	DD
Oil & Grease, Hem-Grav	16	mg/l	4.4	74 1664A	0730 11:30	0731 12:00	AT
Phenolics, Total	0.05	mg/l	0.03	4 420.1		0719 16:25	TH

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0710204

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total Suspended for sample(s) 01 (L0710263-01, WG287940-2)					
Solids, Total Suspended	1500	1600	mg/l	6	32
Cyanide, Total for sample(s) 02 (L0710221-03, WG288122-3)					
Cyanide, Total	0.010	ND	mg/l	NC	
Nitrogen, Ammonia for sample(s) 01 (L0710654-01, WG288801-3)					
Nitrogen, Ammonia	12.9	13.1	mg/l	2	20
Phosphorus, Total for sample(s) 01 (L0710212-02, WG288133-3)					
Phosphorus, Total	0.06	0.06	mg/l	3	20
Chemical Oxygen Demand for sample(s) 01 (L0710215-01, WG287981-4)					
Chemical Oxygen Demand	930	1000	mg/l	7	20
BOD, 5 day for sample(s) 01 (L0710212-01, WG287632-3)					
BOD, 5 day	120	130	mg/l	8	35
Oil & Grease, Hem-Grav for sample(s) 02 (L0709434-69, WG288840-3)					
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC	18
Phenolics, Total for sample(s) 02 (L0710276-01, WG287695-4)					
Phenolics, Total	ND	ND	mg/l	NC	12
Total Metals for sample(s) 01 (L0710250-01, WG287836-1)					
Antimony, Total	ND	ND	mg/l	NC	
Arsenic, Total	ND	ND	mg/l	NC	
Beryllium, Total	ND	ND	mg/l	NC	
Cadmium, Total	ND	ND	mg/l	NC	
Chromium, Total	ND	ND	mg/l	NC	
Copper, Total	ND	ND	mg/l	NC	
Lead, Total	ND	ND	mg/l	NC	
Nickel, Total	ND	ND	mg/l	NC	
Selenium, Total	ND	ND	mg/l	NC	
Silver, Total	ND	ND	mg/l	NC	
Thallium, Total	ND	ND	mg/l	NC	
Zinc, Total	ND	ND	mg/l	NC	
Total Metals for sample(s) 01 (L0710461-01, WG288015-3)					
Mercury, Total	ND	ND	mg/l	NC	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0710204

Parameter	% Recovery	QC Criteria
Cyanide, Total LCS for sample(s) 02 (WG288122-2)		
Cyanide, Total	103	
Nitrogen, Ammonia LCS for sample(s) 01 (WG288801-2)		
Nitrogen, Ammonia	90	80-120
Phosphorus, Total LCS for sample(s) 01 (WG288133-2)		
Phosphorus, Total	107	85-115
Chemical Oxygen Demand LCS for sample(s) 01 (WG287981-2)		
Chemical Oxygen Demand	98	95-105
BOD, 5 day LCS for sample(s) 01 (WG287632-2)		
BOD, 5 day	99	85-115
Oil & Grease, Hem-Grav LCS for sample(s) 02 (WG288840-2)		
Oil & Grease, Hem-Grav	90	78-114
Phenolics, Total LCS for sample(s) 02 (WG287695-2)		
Phenolics, Total	91	82-111
Total Metals LCS for sample(s) 01 (WG287836-4)		
Aluminum, Total	105	
Antimony, Total	103	
Arsenic, Total	105	
Beryllium, Total	108	
Cadmium, Total	114	
Chromium, Total	105	
Copper, Total	98	
Lead, Total	102	
Nickel, Total	102	
Selenium, Total	112	
Silver, Total	93	
Thallium, Total	99	
Zinc, Total	107	
Total Metals LCS for sample(s) 01 (WG288015-1)		
Mercury, Total	102	
Cyanide, Total SPIKE for sample(s) 02 (L0710221-05, WG288122-4)		
Cyanide, Total	76	
Phosphorus, Total SPIKE for sample(s) 01 (L0710393-02, WG288133-4)		
Phosphorus, Total	99	80-120
Chemical Oxygen Demand SPIKE for sample(s) 01 (L0710416-01, WG287981-3)		
Chemical Oxygen Demand	110	80-120

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0710204

Continued

Parameter	% Recovery	QC Criteria
BOD, 5 day SPIKE for sample(s) 01 (L0710212-02, WG287632-4)		
BOD, 5 day	104	50-145
Oil & Grease, Hem-Grav SPIKE for sample(s) 02 (L0709434-70, WG288840-4)		
Oil & Grease, Hem-Grav	90	78-114
Phenolics, Total SPIKE for sample(s) 02 (L0710276-04, WG287695-3)		
Phenolics, Total	100	77-124
Total Metals SPIKE for sample(s) 01 (L0710250-01, WG287836-2)		
Aluminum, Total	105	
Antimony, Total	101	
Arsenic, Total	105	
Beryllium, Total	104	
Cadmium, Total	110	
Chromium, Total	100	
Copper, Total	98	
Lead, Total	99	
Nickel, Total	98	
Selenium, Total	112	
Silver, Total	92	
Thallium, Total	98	
Zinc, Total	102	
Total Metals SPIKE for sample(s) 01 (L0710461-01, WG288015-2)		
Mercury, Total	118	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0710204

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG287940-1)								
Solids, Total Suspended	ND	mg/l	5.0	30	2540D		0723 14:00	ST
Blank Analysis for sample(s) 02 (WG288122-1)								
Cyanide, Total	ND	mg/l	0.005	30	4500CN-CE	0724 15:55	0725 17:32	DD
Blank Analysis for sample(s) 01 (WG288801-1)								
Nitrogen, Ammonia	ND	mg/l	0.400	30	4500NH3-BE		0730 17:38	TV
Blank Analysis for sample(s) 01 (WG288133-1)								
Phosphorus, Total	ND	mg/l	0.01	30	4500P-E		0724 15:00	HS
Blank Analysis for sample(s) 01 (WG287981-1)								
Chemical Oxygen Demand	ND	mg/l	20.	44	410.4		0723 14:00	HG
Blank Analysis for sample(s) 01 (WG287632-1)								
BOD, 5 day	ND	mg/l	2.0	30	5210B	0719 15:20	0724 13:30	HS
Blank Analysis for sample(s) 02 (WG288840-1)								
Oil & Grease, Hem-Grav	ND	mg/l	4.0	74	1664A	0730 11:30	0731 12:00	AT
Blank Analysis for sample(s) 02 (WG287695-1)								
Phenolics, Total	ND	mg/l	0.03	4	420.1		0719 16:25	TH
Blank Analysis for sample(s) 01 (WG287836-3)								
Total Metals				19	200.7			
Aluminum, Total	ND	mg/l	0.10	19	200.7	0720 16:30	0724 13:06	AI
Antimony, Total	ND	mg/l	0.050	19	200.7	0720 16:30	0724 13:06	AI
Arsenic, Total	ND	mg/l	0.005	19	200.7	0720 16:30	0724 13:06	AI
Beryllium, Total	ND	mg/l	0.005	19	200.7	0720 16:30	0724 13:06	AI
Cadmium, Total	ND	mg/l	0.005	19	200.7	0720 16:30	0724 13:06	AI
Chromium, Total	ND	mg/l	0.01	19	200.7	0720 16:30	0724 13:06	AI
Copper, Total	ND	mg/l	0.010	19	200.7	0720 16:30	0724 13:06	AI
Lead, Total	ND	mg/l	0.010	19	200.7	0720 16:30	0724 13:06	AI
Nickel, Total	ND	mg/l	0.025	19	200.7	0720 16:30	0724 13:06	AI
Selenium, Total	ND	mg/l	0.010	19	200.7	0720 16:30	0724 13:06	AI
Silver, Total	ND	mg/l	0.007	19	200.7	0720 16:30	0724 13:06	AI
Thallium, Total	ND	mg/l	0.020	19	200.7	0720 16:30	0724 13:06	AI
Zinc, Total	ND	mg/l	0.050	19	200.7	0720 16:30	0724 13:06	AI

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0710204

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG288015-4)								
Total Metals								
Mercury, Total	ND	mg/l	0.0002	3	245.1	0723 16:35	0724 09:24	DM

REFERENCES

3. Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

4. Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

19. Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

44. Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

74. Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd In Lab: 7/18/07

ALPHA Job #: L0710204

Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Client Information

Client: Rohm & Haas Elec Mat

Address: 455 Forest St
Marlborough MA.

Phone: (508) 229-7177

Fax: (508) 481-2755

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Quarterly (3rd)

Project Location: Sol Outfall

Project #:

Project Manager: Keith Lemaire

ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: 8/1/07 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY - THESE QUESTIONS MUST BE ANSWERED

☐ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☐ No Are Drinking Water Samples Submitted?

☐ Yes ☐ No Have you met minimum field QC requirements?

Other Project Specific Requirements/Comments/Detection Limits:

Refrig <4°C During Collection, Storage and Transfer To ALPHA

Refrigeration Temp: 40°F

ALPHA Lab ID (Lab Use Only)	SampleID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TPP13 + Al	TSS	NH3, COD, TKN	BOD 5	TCN	Total Phenol	Oil & Grease	Sample Specific Comments
0204-01	A	7-18-07	0900	E	KL	✓							Comp
	B	7-18-07	0900	E	KL		✓						Comp
	C	7-18-07	0900	E	KL			✓					Comp
	D	7-18-07	0900	E	KL				✓				Comp
0204-02	E	7-18-07	0900	E	KL					✓			Grab
	F	7-18-07	0900	E	KL						✓		Grab
	G & H	7-18-07	0900	E	KL							✓	Grab

ANALYSIS

SAMPLE HANDLING

Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY

IS YOUR PROJECT MCP ?

Container Type	P	P	P	P	P	A	A
Preservative	C	A	D	A	E	D	B

Relinquished By:	Date/Time	Received By:	Date/Time
Keith Lemaire	7-18-07 1134	T. Fleury	7/18/07 1137

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Rohm & Haas

Address: 455 Forest Street

Marlboro, MA 01752

Attn: Mr. Keith LeMaire

Project Number: EPA MUR

Site: QUARTERLY (2ND)

Laboratory Job Number: L0705713

Date Received: 24-APR-2007

Date Reported: 18-JUN-2007

Delivery Method: Client

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0705713-01	A-D COMPOSITE	SOL OUTFALL
L0705713-02	E-H GRAB	SOL OUTFALL

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: _____
Technical Director

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0705713

Report Submission

This report replaces the report issued on May 7, 2007. The report has been revised to correct the method references for the analysis of BOD, Ammonia Nitrogen, Total Cyanide, Total Phosphorous and Total Suspended Solids.

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

Sample Receipt

The samples were received at the laboratory above the required temperature range. The samples were transported to the laboratory in a cooler with ice and delivered directly from the sampling site.

BOD

L0705713-01 has an elevated detection limit due to the 25x dilution required by the elevated concentration of BOD in the sample.

Total Phosphorus

L0705713-01 has an elevated detection limit due to the 25x dilution required for the sample to fall within the calibration curve.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0705713-01
A-D COMPOSITE
Sample Matrix: WATER

Date Collected: 24-APR-2007 09:30
Date Received : 24-APR-2007
Date Reported : 18-JUN-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 4-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total Suspended	32	mg/l	5.0	30 2540D		0425 07:45	DW
Nitrogen, Ammonia	24.6	mg/l	0.400	30 4500NH3-BE		0504 20:44	HG
Phosphorus, Total	3.7	mg/l	0.25	30 4500P-E		0426 15:00	HS
Chemical Oxygen Demand	210	mg/l	20	44 410.4		0503 12:55	DW
BOD, 5 day	260	mg/l	50	30 5210B	0425 14:10	0430 15:20	DW
Total Metals				19 200.7			
Aluminum, Total	0.12	mg/l	0.10	19 200.7	0427 15:45	0502 19:46	MG
Antimony, Total	ND	mg/l	0.050	19 200.7	0427 15:45	0502 19:46	MG
Arsenic, Total	ND	mg/l	0.005	19 200.7	0427 15:45	0502 19:46	MG
Beryllium, Total	ND	mg/l	0.005	19 200.7	0427 15:45	0502 19:46	MG
Cadmium, Total	ND	mg/l	0.005	19 200.7	0427 15:45	0502 19:46	MG
Chromium, Total	ND	mg/l	0.01	19 200.7	0427 15:45	0502 19:46	MG
Copper, Total	0.039	mg/l	0.010	19 200.7	0427 15:45	0502 19:46	MG
Lead, Total	ND	mg/l	0.010	19 200.7	0427 15:45	0502 19:46	MG
Mercury, Total	ND	mg/l	0.0002	4 245.2	0502 16:50	0503 15:58	DM
Nickel, Total	ND	mg/l	0.025	19 200.7	0427 15:45	0502 19:46	MG
Selenium, Total	ND	mg/l	0.010	19 200.7	0427 15:45	0502 19:46	MG
Silver, Total	ND	mg/l	0.007	19 200.7	0427 15:45	0502 19:46	MG
Thallium, Total	ND	mg/l	0.020	19 200.7	0427 15:45	0502 19:46	MG
Zinc, Total	ND	mg/l	0.050	19 200.7	0427 15:45	0502 19:46	MG

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0705713-02
E-H GRAB
Sample Matrix: WATER

Date Collected: 24-APR-2007 09:30
Date Received : 24-APR-2007
Date Reported : 18-JUN-2007

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 3-Amber,1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Cyanide, Total	ND	mg/l	0.005	30 4500CN-CE	0503 15:30	0503 19:15	DD
Oil & Grease, Hem-Grav	17	mg/l	4.0	74 1664A	0503 10:30	0504 09:30	AT
Phenolics, Total	ND	mg/l	0.03	4 420.1		0501 15:00	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0705713

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total Suspended for sample(s) 01 (L0705769-01, WG277947-2)					
Solids, Total Suspended	110	90	mg/l	20	20
Cyanide, Total for sample(s) 02 (L0705981-02, WG279046-4)					
Cyanide, Total	ND	ND	mg/l	NC	30
Nitrogen, Ammonia for sample(s) 01 (L0705841-01, WG279262-4)					
Nitrogen, Ammonia	83.4	83.4	mg/l	0	20
Phosphorus, Total for sample(s) 01 (L0705728-03, WG278226-3)					
Phosphorus, Total	0.26	0.26	mg/l	0	20
Chemical Oxygen Demand for sample(s) 01 (L0705899-07, WG278978-4)					
Chemical Oxygen Demand	ND	ND	mg/l	NC	
BOD, 5 day for sample(s) 01 (L0705719-01, WG278004-4)					
BOD, 5 day	300	300	mg/l	0	35
Oil & Grease, Hem-Grav for sample(s) 02 (L0706172-02, WG279059-4)					
Oil & Grease, Hem-Grav	13	14	mg/l	7	18
Phenolics, Total for sample(s) 02 (L0705713-02, WG278824-4)					
Phenolics, Total	ND	ND	mg/l	NC	12
Total Metals for sample(s) 01 (L0705664-02, WG278367-1)					
Cadmium, Total	ND	ND	mg/l	NC	
Chromium, Total	ND	ND	mg/l	NC	
Copper, Total	0.013	0.012	mg/l	2	
Lead, Total	ND	ND	mg/l	NC	
Nickel, Total	ND	ND	mg/l	NC	
Silver, Total	0.007	0.007	mg/l	2	
Zinc, Total	ND	ND	mg/l	NC	
Total Metals for sample(s) 01 (L0705713-01, WG278910-3)					
Mercury, Total	ND	ND	mg/l	NC	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0705713

Parameter	% Recovery	QC Criteria
Cyanide, Total LCS for sample(s) 02 (WG279046-1)		
Cyanide, Total	102	90-110
Nitrogen, Ammonia LCS for sample(s) 01 (WG279262-2)		
Nitrogen, Ammonia	93	80-120
Phosphorus, Total LCS for sample(s) 01 (WG278226-2)		
Phosphorus, Total	104	85-115
Chemical Oxygen Demand LCS for sample(s) 01 (WG278978-2)		
Chemical Oxygen Demand	97	
BOD, 5 day LCS for sample(s) 01 (WG278004-2)		
BOD, 5 day	110	85-115
Oil & Grease, Hem-Grav LCS for sample(s) 02 (WG279059-2)		
Oil & Grease, Hem-Grav	90	78-114
Phenolics, Total LCS for sample(s) 02 (WG278824-2)		
Phenolics, Total	96	82-111
Total Metals LCS for sample(s) 01 (WG278367-4)		
Aluminum, Total	100	
Antimony, Total	99	
Arsenic, Total	100	
Beryllium, Total	102	
Cadmium, Total	102	
Chromium, Total	95	
Copper, Total	92	
Lead, Total	98	
Nickel, Total	94	
Selenium, Total	102	
Silver, Total	96	
Thallium, Total	98	
Zinc, Total	98	
Total Metals LCS for sample(s) 01 (WG278910-1)		
Mercury, Total	101	
Cyanide, Total SPIKE for sample(s) 02 (L0705713-02, WG279046-3)		
Cyanide, Total	99	80-120
Nitrogen, Ammonia SPIKE for sample(s) 01 (L0705667-01, WG279262-3)		
Nitrogen, Ammonia	102	75-125
Phosphorus, Total SPIKE for sample(s) 01 (L0705711-01, WG278226-4)		
Phosphorus, Total	98	80-120

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0705713

Continued

Parameter	% Recovery	QC Criteria
Chemical Oxygen Demand SPIKE for sample(s) 01 (L0705899-07, WG278978-3)		
Chemical Oxygen Demand	108	
BOD, 5 day SPIKE for sample(s) 01 (L0705719-03, WG278004-3)		
BOD, 5 day	118	50-145
Oil & Grease, Hem-Grav SPIKE for sample(s) 02 (L0706106-01, WG279059-3)		
Oil & Grease, Hem-Grav	84	78-114
Phenolics, Total SPIKE for sample(s) 02 (L0705764-04, WG278824-3)		
Phenolics, Total	94	77-124
Total Metals SPIKE for sample(s) 01 (L0705664-02, WG278367-2)		
Aluminum, Total	105	
Antimony, Total	100	
Arsenic, Total	101	
Beryllium, Total	103	
Cadmium, Total	104	
Chromium, Total	95	
Copper, Total	92	
Lead, Total	98	
Nickel, Total	94	
Selenium, Total	103	
Silver, Total	96	
Thallium, Total	99	
Zinc, Total	101	
Total Metals SPIKE for sample(s) 01 (L0705713-01, WG278910-2)		
Mercury, Total	123	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0705713

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG277947-1)							
Solids, Total Suspended	ND	mg/l	5.0	30 2540D		0425 07:45	DW
Blank Analysis for sample(s) 02 (WG279046-2)							
Cyanide, Total	ND	mg/l	0.005	30 4500CN-CE	0503 15:30	0503 19:11	DD
Blank Analysis for sample(s) 01 (WG279262-1)							
Nitrogen, Ammonia	ND	mg/l	0.400	30 4500NH3-BE		0504 19:56	HG
Blank Analysis for sample(s) 01 (WG278226-1)							
Phosphorus, Total	ND	mg/l	0.01	30 4500P-E		0426 15:00	HS
Blank Analysis for sample(s) 01 (WG278978-1)							
Chemical Oxygen Demand	ND	mg/l	20.	44 410.4		0503 12:55	DW
Blank Analysis for sample(s) 01 (WG278004-1)							
BOD, 5 day	ND	mg/l	2.0	30 5210B	0425 14:10	0430 15:20	DW
Blank Analysis for sample(s) 02 (WG279059-1)							
Oil & Grease, Hem-Grav	ND	mg/l	4.0	74 1664A	0503 10:30	0504 09:30	AT
Blank Analysis for sample(s) 02 (WG278824-1)							
Phenolics, Total	ND	mg/l	0.03	4 420.1		0501 15:00	AT
Blank Analysis for sample(s) 01 (WG278367-3)							
Total Metals				19 200.7			
Aluminum, Total	ND	mg/l	0.10	19 200.7	0427 15:45	0502 19:26	MG
Antimony, Total	ND	mg/l	0.050	19 200.7	0427 15:45	0502 19:26	MG
Arsenic, Total	ND	mg/l	0.005	19 200.7	0427 15:45	0502 19:26	MG
Beryllium, Total	ND	mg/l	0.005	19 200.7	0427 15:45	0502 19:26	MG
Cadmium, Total	ND	mg/l	0.005	19 200.7	0427 15:45	0502 19:26	MG
Chromium, Total	ND	mg/l	0.01	19 200.7	0427 15:45	0502 19:26	MG
Copper, Total	ND	mg/l	0.010	19 200.7	0427 15:45	0502 19:26	MG
Lead, Total	ND	mg/l	0.010	19 200.7	0427 15:45	0502 19:26	MG
Nickel, Total	ND	mg/l	0.025	19 200.7	0427 15:45	0502 19:26	MG
Selenium, Total	ND	mg/l	0.010	19 200.7	0427 15:45	0502 19:26	MG
Silver, Total	ND	mg/l	0.007	19 200.7	0427 15:45	0502 19:26	MG
Thallium, Total	ND	mg/l	0.020	19 200.7	0427 15:45	0502 19:26	MG
Zinc, Total	ND	mg/l	0.050	19 200.7	0427 15:45	0502 19:26	MG

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0705713

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG278910-4)								
Total Metals								
Mercury, Total	ND	mg/l	0.0002	4	245.2	0502 16:50	0503 15:54	DM

REFERENCES

4. Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

19. Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

44. Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

74. Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 4/24/07

ALPHA Job #: L0705713

ALPHA
WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

RAYNHAM, MA
TEL: 508-822-9300
FAX: 508-822-3288

Client Information

Client: Rohm + Haas Electronic Mate
Address: 455 Forest St
Marlborough MA
Phone: 508-229-7177
Fax: 508-481-2955
Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Quarterly (2nd)
Project Location: SOI outfall
Project #:
Project Manager: Keith Lemaire
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 5/8/07 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client Info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY — CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

Refrig <4°C During collection, storage and Transfer To ALPHA
Refrigeration Temp 40°F

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TPH 1664	TSS	NH3	COD	TPhos	BOD 5	TKN	Total Phenol	Oil & Grease	Sample Specific Comments
5713.1	A	4-24-7	0930	E	KL	✓									Comp
1	B	4-24-7	0930	E	KL		✓								Comp
1	C	4-24-7	0930	E	KL			✓							Comp
1	D	4-24-7	0930	E	KL				✓						Comp
2	E	4-24-7	0930	E	KL					✓					Grab
2	F	4-24-7	0930	E	KL						✓				Grab
2	G & H	4-24-7	0930	E	KL							✓			Grab

SAMPLE HANDLING

Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

Container Type	P	P	P	P	P	A	A
Preservative	C	A	D	A	E	D	B

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Keith LeMaire	4-24-7 1055		4/24/07 1057

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Paymert Terms. See reverse side.

FORM NO: 01-01 (rev 10-OCT-05)

Attachment B

POTW Sewer Use Permits

- Main Pretreatment Facility
- ATC Pretreatment System

S. Croce
Copy

COPY

City of Marlborough
Westerly Wastewater Treatment Plant
303 Boundary Street
Marlborough, MA 01752

November 2, 2006

Sarita Croce
Rohm and Haas Electronic Materials, LLC
455 Forest Street
Marlborough, MA 01752

Dear Sarita Croce;

Enclosed is your updated permit. All conditions of this permit shall take effect on the Effective Date as stated on the permit.

The only exception is the BOD_5, Daily Maximum Limit, which will become effective at a later date.

If you have any questions, please contact me @508-624-6919.

Respectfully,

Roland Gould, IPP Coordinator

EFFECTIVE DATE: 12/04/06 **PERMIT # SIU4817950**
EXPIRATION DATE: 12/03/2011

Facility Name: **Rohm and Haas Electronic Materials, LLC**
455 Forest Street
Marlborough, MA 01752

I. DEFINITIONS

Unless the context clearly indicates otherwise, the meaning of the terms or abbreviations used in this discharge permit shall be defined in exhibit " A ".

II. GENERAL CONDITIONS

a. All discharges authorized herein shall be consistent with the terms of this permit and the Marlborough Sewer Regulations, Section 161-1 et. seq. The discharge of any pollutant more frequently than or at a level in excess of that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Such a violation may result in the imposition of civil and / or criminal penalties as provided for in Marlborough's Sewer Regulations, and applicable state and federal clean water laws. Modifications, additions and / or expansions that increase or decrease the quality and / or quantity of wastewater discharged to the Wastewater Facilities must be reported to the City of Marlborough's Industrial Pretreatment Coordinator, in writing, and this permit may then be modified or reissued to reflect such changes. No change in the permittee's discharge may be made unless reported to, and approved by the City. In no case shall new connections, increased flows, or significant changes in effluent quantity and / or quality be permitted, unless permitted by the City.

b. This permit may be modified, suspended, or revoked in whole or in part during its term, without limitation, for the following reasons:

1. Violation of any term or condition of this permit;

2. Obtaining permit by misrepresentation or failure to disclose fully all-relevant facts.

3. A change in conditions or the existence of a condition which requires either a temporary or permanent reduction or elimination of the authorized discharge.

4. Promulgation of a more stringent pretreatment standard by State or Federal agencies having jurisdiction over receiving waters. Permits modified under this section may include implementation schedules, self monitoring requirements, revised effluent limitations, and other provisions necessary to assure compliance.

5. Violation of the Marlborough Sewer Regulations, or other applicable laws.

c. The permittee shall permit the City of Marlborough Department of Public Works and

such conditions have been corrected, the duration of the period of non-compliance;

3. Steps taken by the permittee to reduce and eliminate the non-complying discharge;

4. Steps to be taken by the permittee to prevent recurrence of the condition of non–compliance.

The City reserves all rights and remedies that it has under or by reason of any statutory law, ordinance, regulation, or common law, or other applicable law, to cure any breach of this agreement or to enforce any penalty for the breach thereof.

i. **Emergency Action - Electric Power Failure:** The permittee shall provide an alternative source of power for the operation of its pretreatment facilities or shut down its industrial operation during a power failure. The alternative power supply, whether from a generating unit located at the plant site or purchased from an independent source of electricity, must be separate from the existing power source used to operate the pretreatment facilities.

j. **Bypasses, Slug Loads, Spills:** Slug loads, spills or bypass of any discharge from its pretreatment facilities utilized by the permittee to maintain compliance with the terms and conditions of this permit is prohibited, except where unavoidable to prevent loss of life. **The permittee shall follow the requirements in 40 CFR Part 403, including section 403.16 (c) (3)** which includes the verbal notification of the Pretreatment Coordinator within 24 hours, **and in writing,** of each such slug, spill or bypass in accordance with the procedure specified in part: "h. **Non-Compliance"** of this same section of this permit.

k. **Revisions:** The City of Marlborough reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, management practices, operational procedures, schedule or compliance, or other provisions which may be authorized under Federal, State or City law in order to bring all such discharges into compliance with these acts.

l. **Reapplication:** If the permittee desires to continue to discharge after the expiration of this permit, it shall reapply on the application forms then in use at least one hundred eighty (180) days before the Permit expires. Under no circumstances shall the permittee continue to discharge after the expiration of the Permit.

III. SPECIAL CONDITIONS

a. The permittee is required to connect their wastewater facilities to the public sewer in accordance with the provisions of the Marlborough Sewer Use regulations, and other applicable laws.

b. The Permittee is authorized to discharge only wastewater whose effluent and other characteristics shall not:

(i) exceed the values listed in Section VII. MONITORING REQUIREMENTS or,

f. **Sampling and Analysis:** The sampling, preservation, handling, and analytical methods used must conform to the Approved Methods in **40 CFR 136.**

g. All limitations as given in this permit are conditional, and may be revised, should the concentrations prove detrimental to the proper operation and maintenance of the Marlborough Treatment Facilities. In addition to costs and charges under Section IV a. and IV b., **upon notification to reduce the specified concentrations, the Permittee shall be responsible for all costs incurred at the Treatment Facilities, which resulted because of excessive concentrations.**

h. **All industries are required to resample and analyze for any parameter that is in violation of their permit within 30 (thirty) days, and submit the test results to the IPP coordinator.**

VI IMPLEMENTATION SCHEDULE

a. **The permittee shall:**

1. Ensure that a functional composite sampler is available for the collection of a representative effluent sample.
2. Operate a pH meter with a continuous chart recorder which shall be maintained and calibrated at least biweekly.
3. Operate a flow meter for continuous measurement of discharge volume, which shall be calibrated at least annually.

b. **Pretreatment**

The permittee shall achieve compliance with the final effluent limitations as delineated below.

1. This facility is subject to the terms and conditions set forth in 40 CFR part 403.

***Example: If there is a requirement for quarterly phosphorus sampling, a sample has to be taken in January, February or March and the results are to be received by the IPP coordinator by April 15th. This scenario is the same for all calendar quarters.**

Municipal Limitations / Conditions / General comments

1. Adhere to the City of Marlborough's Sewer Regulations, and all state and federal laws.

2. Ensure that a functional composite sampler is available for the collection of a representative effluent sample.

3. Ensure that the pH meter with a continuous chart recorder is calibrated at least biweekly.

4. Ensure that the flow meter for continuous measurement of discharge volume is calibrated at least annually.

5. The wastewater discharge shall not contain a visible oil sheen or foam at any time. In addition, the wastewater discharge shall not contain any foaming agents in quantities that would manifest themselves either in the immediate wastewater discharge or in downstream locations, including without limitation, the City's wastewater treatment plant or in downstream waters.

6. It shall be considered a violation of this permit if any foaming agents, or other wastewater constituents result in, or contribute to, any adverse impact on the City's wastewater treatment facility, its sewer collection system, the receiving waters, or any other location below SO1.

FACT SHEET

Rohm and Haas Electronic Materials, LLC located at 455 Forest Street in Marlborough is being issued a Marlborough Industrial Wastewater Discharge Permit, as your industry is considered a Significant Industrial User by the City of Marlborough.

Your discharge will be treated at the Marlborough Westerly Wastewater Treatment Plant on 303 Boundary Street in Marlborough, Massachusetts. The discharge from the Marlborough West Plant enters the Assabet River that then flows to the Sudbury River. The confluence of the Sudbury and Assabet Rivers form the Concord River that flows north to the Merrimac River then out to the Atlantic Ocean.

EFFECTIVE DATE: 2/10//2003
EXPIRATION DATE: 2/09/2008

PERMIT # NSIU4817950-1

Facility Name: Shipley Company, L.L.C.,
Advanced Technology Center (Fab 4)
455 Forest Street
Marlborough, MA 01752

COPY

SSC 5/16/06

I. DEFINITIONS

Unless the context clearly indicates otherwise, the meaning of the terms or abbreviations used in this discharge permit shall be defined in exhibit " A ".

II. GENERAL CONDITIONS

a. All discharges authorized herein shall be consistent with the terms of this permit. The discharge of any pollutant more frequently than or at a level in excess of that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Such a violation may result in the imposition of civil and / or criminal penalties as provided for in Marlborough's Sewer Use Ordinance and / or Public Law 92 - 500. Modifications, additions and / or expansions that increase or decrease the quality and / or quantity of wastewater discharged to the Wastewater Facilities must be reported to the City of Marlborough's Industrial Pretreatment Coordinator, in writing, and this permit may then be modified or reissued to reflect such changes. No change in the permittee's discharge may be made unless reported to, and approved by the City. In no case shall new connections, increased flows, or significant changes in effluent quantity and / or quality be permitted if such will cause violation of the effluent limitation specified herein, unless permitted by the City.

b. After notice and opportunity for a hearing as provided in Section 15 - 9(d) of the Sewer Use Ordinance, this permit may be modified, suspended, or revoked in whole or in part during its term, for causes including the following:

1. Violation of any term or condition of this permit;

2. Obtaining permit by misrepresentation or failure to disclose fully all-relevant facts.

3. A change in conditions or the existence of a condition which requires either a temporary or permanent reduction or elimination of the authorized discharge.

4. Promulgation of a more stringent pretreatment standard by State or Federal agencies having jurisdiction over receiving waters. Permits modified under this section may include implementation schedules, self monitoring requirements, revised effluent limitations, and other provisions necessary to assure compliance.

c. The permittee shall permit the City of Marlborough Department of Public Works and

other duly authorized Industrial Pretreatment personnel upon the presentation of proper credentials:

1. To enter upon permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit during business hours;

2. To have access to and copy any records required to be kept under the terms and conditions of this permit;

3. To inspect any monitoring equipment or monitoring method required in this permit; or

4. To sample at any intake, wastewater facility, or outfall.

d. In the event that the permittee undergoes a major change in ownership of either its corporate voting stock or control of its corporate stock or of the building to which this contract relates, then and in any of said events, the permittee shall notify the City of Marlborough's Pretreatment Coordinator of such change. Failure to so notify the Pretreatment Coordinator within 30 days of such event shall void the permit at the option of the City of Marlborough. In the event of such transfer, the Transferee shall forthwith enter into a new permit with the City, which embodies the terms of this permit.

e. If applicable, all pretreatment facilities shall be operated in a manner consistent with the Sewer Use Ordinance and any Federal. State, or local regulations and guidelines. The Permittee shall at all times maintain in good working order and operate as efficiently as possible any facilities or systems of controls installed or utilized to achieve compliance with the terms and conditions of this permit.

f. The issuance of this permit does not convey any property rights in either its real or personal property, or any exclusive privileges; nor does it authorize or relieve the permittee of any liability for any injury to private property or any invasion of personal rights; nor any infringement of Federal, State, or local laws or regulations; nor does it waive the necessity of obtaining any State or Federal assent required by law for the discharge authorized herein;

g. The provisions of this permit are severable and the invalidity of any condition or subdivision thereof shall not make void any other condition or subdivision thereof.

h. **Non-Compliance:** In the event the permittee is unable to comply with any of the conditions of this permit due to a breakdown of pretreatment facilities, the permittee shall provide the City of Marlborough's Pretreatment Coordinator with the following information, in writing, within five (5) days after commencement of such occurrence;

1. Cause of non-compliance;

2. Anticipated time the condition of non-compliance is expected to continue, or if such conditions have been corrected, the duration of the period of non-compliance;

3. Steps taken by the permittee to reduce and eliminate the non-compliance discharge;

4. Steps to be taken by the permittee to prevent recurrence of the condition of non–compliance.

The City reserves all rights and remedies that it has under or by reason of any statutory law, ordinance, or common law to cure any breach of this agreement or to enforce any penalty for the breach thereof.

i. **Emergency Action - Electric Power Failure:** The permittee shall provide an alternative source of power for the operation of its pretreatment facilities or shut down its industrial operation of its pretreatment facilities or shut down its industrial operation during a power failure. The alternative power supply, whether from a generating unit located at the plant site or purchased from an independent source of electricity, must be separate from the existing power source used to operate the pretreatment facilities.

j. **Bypasses, Slug Loads, Spills:** The slug loads, spills or bypass of any discharge from its pretreatment facilities utilized by the permittee to maintain compliance with the terms and conditions of this permit is prohibited, except where unavoidable to prevent loss of life. The permittee shall immediately notify the Pretreatment Coordinator, in writing, of each such slug, spill or bypass in accordance with the procedure specified above for reporting non - compliance.

k. **Revisions:** The City of Marlborough reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedule or compliance, or other provisions which may be authorized under Federal, State or City acts in order to bring all such discharges into compliance with these acts.

l. **Reapplication:** If the permittee desires to continue to discharge after the expiration of this permit, it shall reapply on the application forms then in use at least sixty (60) days before the Permit expires. Under no circumstances shall the permittee continue to discharge after the expiration of the Permit.

III. SPECIAL CONDITIONS

a. The permittee is required to connect their wastewater facilities to the public sewer in accordance with the provisions of the Sewer Use Ordinance, within ninety (90) days after the date of the official notice to do so, provided that said public sewer is determined to be accessible and available by the Department of Public Works.

b. Upon connection to the City's wastewater facilities, the Permittee is authorized to discharge wastewater whose effluent characteristics shall not exceed the values listed in **Section VII., MONITORING REQUIREMENTS.**

c. **Solids Disposal:** Collected screenings, sludges and other solids removed from liquid wastes shall not be allowed entry into the City's sewer collection system.

IV. COSTS AND CHARGES

a. **Summary of Costs and Charges:** In consideration of the wastewater disposal services provided by the City under the terms of this permit, the permittee shall pay a user charge at established rates.

1. **Connection Costs:** The entire cost of connecting the permittee's wastewater facilities to the City's system shall be paid by the Permittee or otherwise provided for to the satisfaction of the City.

2. **Late Charges:** All billings shall be subject to nine percent per annum late charge if not paid within thirty (30) days of the billing date.

3. **Payments:** All payments shall be made by check drawn payable to the order of the City of Marlborough and mailed to the DPW Municipal Garage, 135 Neil Street, Marlborough, Mass. 01752.

V. REPORTING AND MONITORING

a. **At each connection between the permittee's sewer system and the City's collection system the permittee shall install flow meters(s), composite sampler(s), sampling station, or other device(s) that shall measure sample and record the quantity / quality of wastewater flow from the industry. All monitoring devices and sampling stations must be approved by the City of Marlborough.** The permittee shall maintain records of all information resulting from any monitoring activities required herein. The permittee shall accept the estimates of quantities of wastewater as established by the Industrial Pretreatment Coordinator during all periods in which the meters fail to measure the wastewater flow correctly.

b. The Permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at regular intervals to ensure accuracy of measurements.

c. The Permittee shall provide the above records and shall demonstrate the accuracy of the monitoring devices upon request of the City of Marlborough.

d. The Permittee shall analyze any samples as may be required by the City of Marlborough to ensure effluent quality control.

e. **If the Permittee monitors any wastewater parameters more frequently than is required by this permit, the results of such monitoring shall also be made available upon request to the City of Marlborough's IPP coordinator.**

f. **Sampling and Analysis:** The sampling, preservation, handling, and analytical methods used must conform to the Approved Methods in **40 CFR 136.**

g. All limitations as given in this permit are conditional, and may be revised, should the concentrations prove detrimental to the proper operation and maintenance of the Treatment Facilities. **Upon notification to reduce the specified concentrations, the Permittee shall be responsible for all costs incurred at the Treatment Facilities, which resulted because of excessive concentrations.**

h. **All industries are required to resample and analyze for any parameter that is in violation of their permit within 30 (thirty) days, and submit them to the IPP coordinator.**

VI IMPLEMENTATION SCHEDULE

No later than fourteen (14) calendar days following the date identified in the following schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or non - compliance. In the latter case, the notice shall include the cause of non - compliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

1. Ensure that a functional composite sampler is available for the collection of a representative effluent sample.
2. A pH meter with a continuous chart recorder shall be installed for monitoring regulated wastewater within thirty (30) days of the effective date of this permit and calibrated at least weekly.
3. Install a flow meter for continuous measurement of discharge volume within thirty (30) days of the effective date of this permit. This meter shall be calibrated at least annually.

b. **Pretreatment**

The permittee shall achieve compliance with the final effluent limitations as delineated below.

1. This facility is subject to the terms and conditions set forth in the City of Marlborough Sewer Use Ordinance and this permit.

VII. MONITORING REQUIREMENTS

Monitoring Facilities – Advanced Technology Center (Fab 4) building. Monitoring samples are to be taken after all industrial processes and pretreatment. Monitoring location shall be identified as NS02.

The Permittee shall collect and analyze representative samples for listed parameters not less frequently than the following schedule:

Parameter	Units	Daily Maximum Limit	Sample Type	Sample Freq
Ammonia, nitrogen	mg/l	NLS	C	S
Antimony	mg/l	NLS	C	S
Arsenic	mg/l	0.42	C	S
BOD_5	mg/l	NLS	C	S
Beryllium	mg/l	0.12	C	S
COD	mg/l	NLS	C	S
Cadmium	mg/l	0.02	C	S
Chromium	mg/l	0.77	C	S
Copper	mg/l	0.30	C	S
Cyanide	mg/l	0.23	G	S
Flow, Process	gpd	3,000	CONTINUO	ONTINUOUS

Lead	mg/l	0.08	C	S
Mercury	mg/l	0.0007	C	S
Nickel	mg/l	0.37	C	S
Oil and grease	mg/l	100	G	S
Phenol	mg/l	NLS	G	S
Selenium	mg/l	0.81	C	S
Silver	mg/l	0.01	C	S
EPA 624, 625*	mg/l	2.13	G/C	S
Thallium	mg/l	0.93	C	S
Total Phosphorus	mg/l	NLS	C	S
TSS	mg/l	NLS	C	S
Zinc	mg/l	0.50	C	S
PH	SU	6.0 - 9.0	CONTINUOUS	CONTINUOUS

* EPA 624 is to be done on a grab sample; EPA 625 is done on a composite sample.

Abbreviations: **C** = Composite, **G** = Grab, **D** = Daily, **NLS** = No Limit Set, **Q** = Quarterly, **S** = Semi Annual, **Y** = Yearly (Annually)

A. All **Weekly reports** are due no later than three (3) weeks from the sampling date.
B. All **Monthly reports** are due by the 15th day of the following month.
C. All **Quarterly reports** are due no later than the 15th day of April, July, October and January.*
D. All **Semi-annual reports** are due in June and December.
E. All **Annual reports** are to be received no later than December 31st.

***Example: If there is a requirement for quarterly phosphorus sampling, a sample has to be taken in January, February or March and the results are to be received by the IPP coordinator by April 15th. This scenario is the same for all calendar quarters.**

Municipal Limitations / Conditions / General comments

1. Adhere to the City of Marlborough's Sewer Use Ordinance.
2. Ensure that a functional composite sampler is available for the collection of a representative effluent sample.
3. Ensure that the pH meter with a continuous chart recorder is calibrated at least biweekly.
4. Ensure that the flow meter for continuous measurement of discharge volume is calibrated at least annually.
5. The wastewater discharge shall not contain a visible oil sheen or foam at any time.
6. The discharge shall not contain objectionable discoloration.

Permit #: NSIU4817950-1

Effective date: 2/10/2003
Expiration date: 2/09/2008

This page is considered part of the discharge permit.

CITY OF MARLBOROUGH
AUTHORIZATION TO DISCHARGE TO THE EASTERLY / WESTERLY
WASTEWATER TREATMENT FACILITY

Company Name: Shipley Company, L.L.C.

Address: 455 Forest Street
Marlborough, MA 01752

Telephone Number: 508-481-7950

The Shipley Company is authorized by the Department of Public Works to discharge wastewater from the Advanced Technology Center (Fab 4) located at 455 Forest Street, Marlborough, Massachusetts to the Marlborough **Westerly** WWTP in accordance with the following conditions.

Adhere to all of the conditions in your Industrial Wastewater Discharge Permit # NSIU4817950-1

This permit consists of /2 pages including effluent limitations, monitoring requirements and general conditions etc.

Signed this 5 **day of** February, 2003

Roland Gould
IPP Coordinator
Marlborough DPW

CITY OF MARLBOROUGH
ACKNOWLEDGEMENT OF PERMIT LIMITATIONS

The undersigned acknowledges the receipt of the permit authorizing discharge of wastewater to the Marlborough Sewer System being permit # NSIU4817950-1. The permittee also acknowledges that this permit is issued at its request based upon the application for the permit and the information provided and acknowledges the conditions and limitations set forth in said permit. All information and data contained in this document pursuant to the General Pretreatment Requirements Part 403.14 identifying the nature and frequency of a discharge shall be available to the public without restriction.

City of Marlborough	Shipley Company, L.L.C.
(permitting authority)	(permittee)
By:	By:
Date: 2/5/03	Date: 5th Feb 03

FACT SHEET

Shipley Company L.L.C. located at 455 Forest Street in Marlborough is being issued this Marlborough Industrial Wastewater Discharge Permit for the Advanced Technology Center, designated as "Fab 4".

Your discharge will be treated at the Marlborough Westerly Wastewater Treatment Plant on 303 Boundary Street in Marlborough, Massachusetts. The discharge from the Marlborough West Plant enters the Assabet River that then flows to the Sudbury River. The confluence of the Sudbury and Assabet Rivers form the Concord River that flows north to the Merrimac River then out to the Atlantic Ocean.

EXHIBIT "A"

DEFINITIONS

1. BOD, denotes BIOCHEMICAL OXYGEN DEMAND, which means the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedures in five (5) days at twenty (20) degrees Centigrade expressed in parts per million by weight, as determined by Standard Methods.

2. CITY shall mean the City of MARLBOROUGH, MASS.

3. DISCHARGE MEASUREMENT - The determination of the quantity of wastewater flowing per unit of time in the sewer system at a given point by means of a current meter, rod float, weir, Pitot tube, or other measuring device or method.

4. FLOW RECORDER shall mean a weir, meter or flume or other device, which will measure and record the volume of wastewater discharged.

5. MGD - Wastewater flow in million gallons per day.

6. MAXIMUM DAILY FLOW shall mean the highest daily rate of wastewater flow occuring within a single day.

7. MEASURING DEVICE - Instrument determining concentration, flow, etc.

8. METER - An instrument for measuring the amount and rate of flow of liquids.

9. MINIMUM DAILY FLOW shall mean the smallest rate of wastewater flow of liquids.

10. MONITORING DEVICE shall mean any equipment which specifically measures and/or samples wastewater.

11. PRETREATMENT FACILITIES shall mean the structures, equipment, and processes required to collect, treat, and transport.

12. QUANTITY AND QUALITY OF WASTEWATER is an expression which determines the amount and composition of the wastewater. Composition, in this case, refers to the chemical and physical characteristics of the solid and liquid constituents of the wastewater. These characteristics are usually measured in terms of gallons per day, BOD and SS.

13. SAMPLE shall mean a portion of the wastewater obtained for analytical purposes. This portion may be a single sample (grab), composite sample, continuous sample or periodic sample.

a. SAMPLER - A device used with or without flow measurement to obtain in aliquot portion of water or wastewater for analytical purposes. May be designed for taking single sample (grab), composite sample, continuous sample, periodic sample.

b. COMPOSITE WASTEWATER SAMPLE - A combination of individual samples of water or wastewater taken at selected intervals, generally hourly for some specified period, to minimize the effect of the variability of the individual sample. Individual

samples shall be proportioned to the flow at time of sampling.

c. SAMPLING STATION - A specified site where monitoring takes place on a regular basis.

14. SHALL is mandatory; MAY is permissive.

15. SUSPENDED SOLIDS shall mean the solids that either float on the surface of, or are in suspension in wastewater and which are largely removable by laboratory filtering, and wastewater treatment plant.

16. WASTEWATER TREATMENT FACILITIES - The structures, equipment, and processes required to collect, transport, treat and dispose of wastewater and dispose of the effluent including but not limited to collection system, interceptors, and wastewater treatment plant.

17. TREATMENT (TREAT) shall mean a process to which wastewater is subjected in order to remove or alter its objectional constituents and thus render it less offensive or dangerous.

18. WASTEWATER - The spent water of an industry. Spent water may be a combination of the liquid wastes from industrial establishments, together with any groundwater, surfacewater and storm water that may be present.

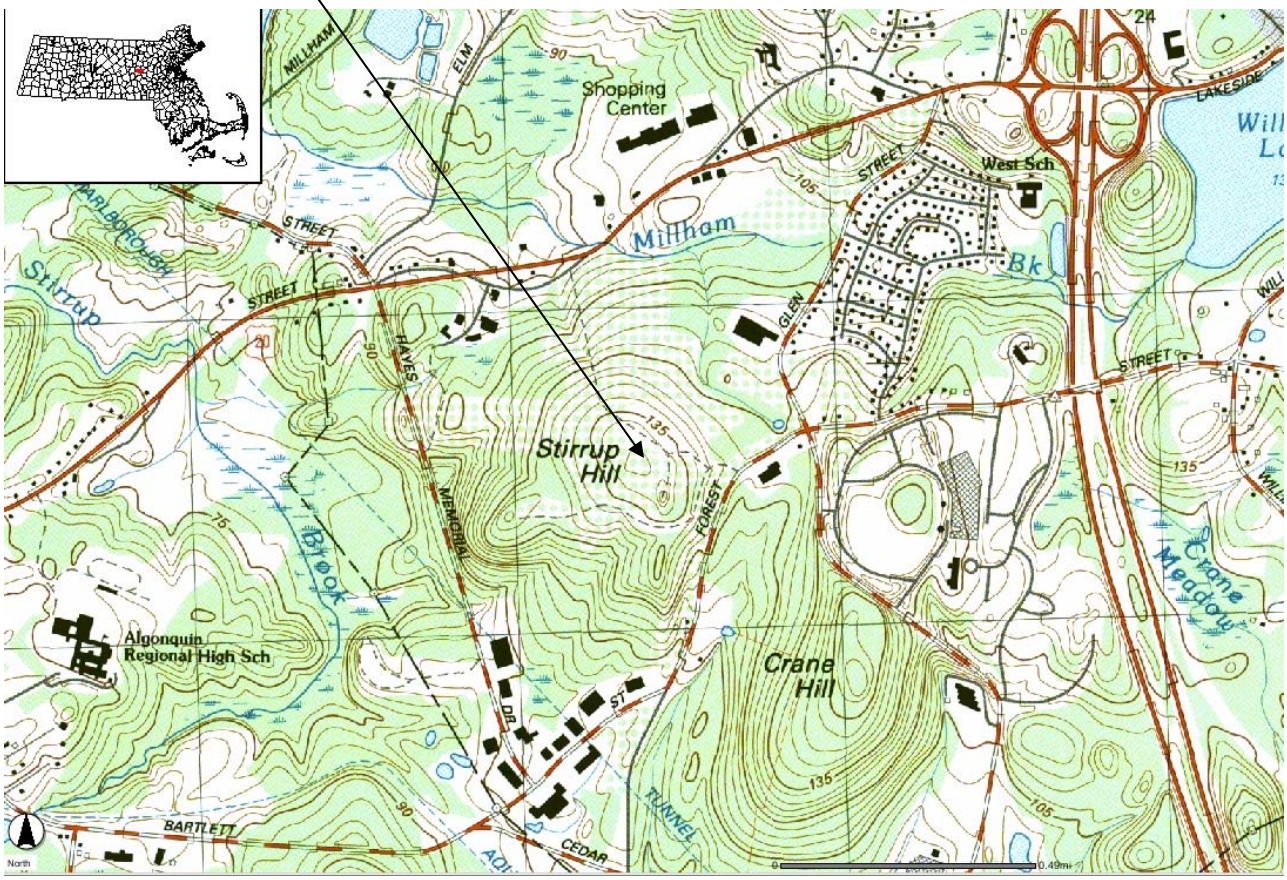
19. WASTEWATER DISPOSAL - The act of disposing of wastewater by discharging to the City's Wastewater Treatment Facilities.

Attachment C

Site Map and DEP Priority Resource Map

- Main Pretreatment Facility
- ATC Pretreatment System

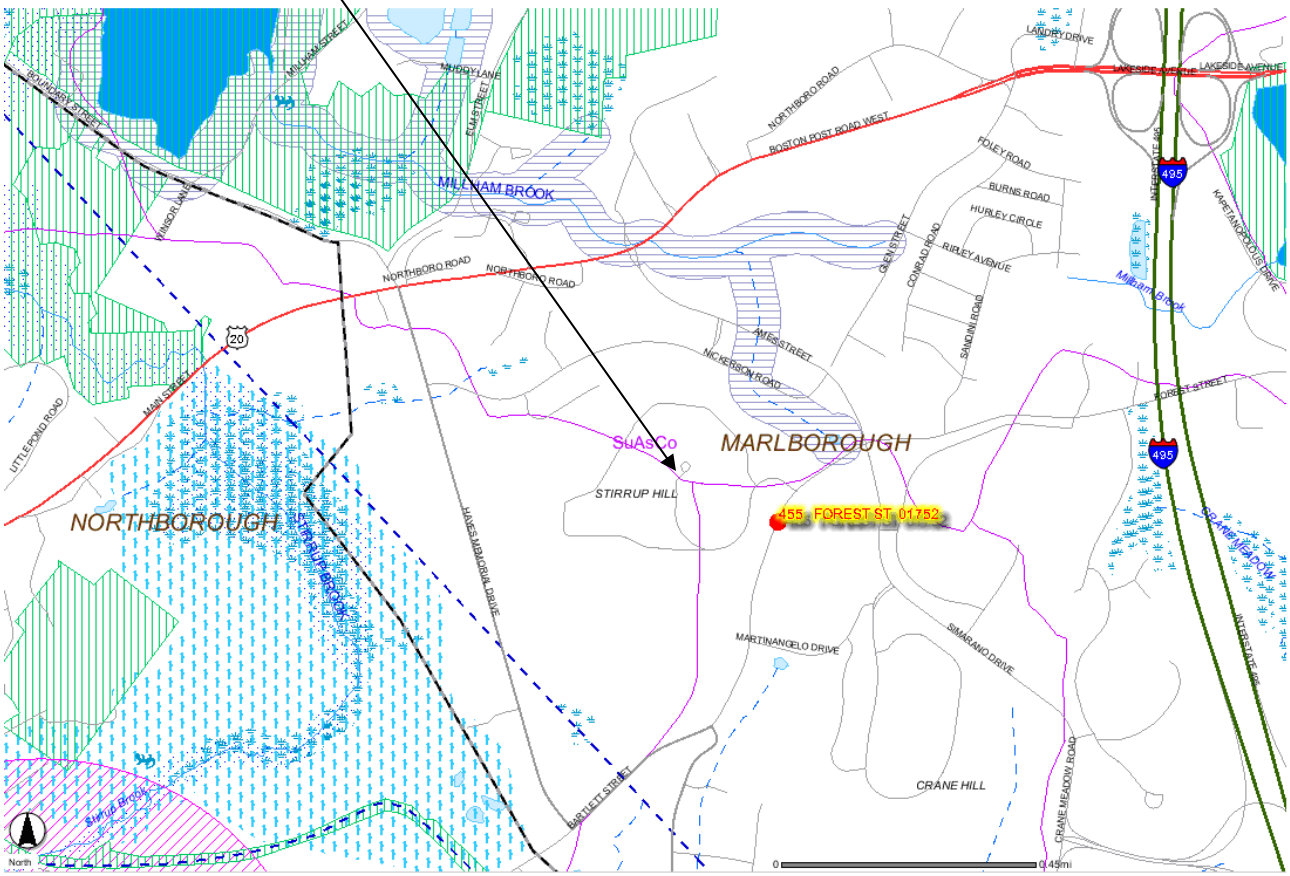
Rohm and Haas



MASS GIS

USGS 25k Topographic Maps

Rohm and Haas



DEP MCP 21e Map Legend

- Zone IIs
- IWPAs
- Zone A
- Sole Source Aquifers
- Solid Waste Sites
- Protected Openspace
- ACECs
- NHESP Estimated Habitat of Rare Wildlife in Wetland Areas
- Certified Vernal Pools 2003 NHESP
- Subbasins
- Mass Major Basins
- DEP Region
- Town Arcs
- County Boundaries

Aquifers, By Yield
- HIGH YIELD
- MEDIUM YIELD

Non Potential Drinking Water Source Area
- HIGH YIELD
- MEDIUM YIELD

FEMA Floodplains
- 100 YEAR FLOODPLAIN

Hydrography
- WATER
- RESERVOIR
- WETLANDS
- SALTWATER WETLANDS
- FLATS,SHOALS

Rivers and Streams
- PERENNIAL
- INTERMITTENT
- SHORELINE
- MAN MADE SHORE
- DAM
- AQUEDUCT

EOT-OTP Roads
- LIMITED ACCESS HIGHWAY
- MULTI LANE HWY, NOT LIMITED ACCESS
- OTHER NUMBERED HWY
- MAJOR ROAD - COLLECTOR
- MINOR STREET OR ROAD, RAMP

Tracks and Trails MHD
- TRACK
- TRAIL

Transmission Lines
- PIPELINE
- POWERLINE
- TRAIN

MASS GIS

Flood Insights test results for :

Latitude: 42.325192 Longitude: -71.597773

Geocoding Accuracy: Not Available

Flood Zone Determinations

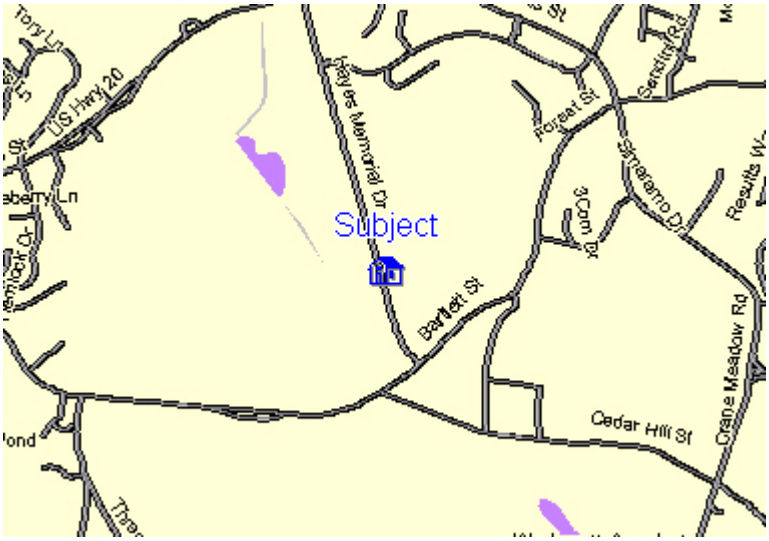
Test Description

SFHA (Flood Zone) Within 250 feet of multiple flood zones?

Out No

Community	Community Name	Zone	Panel	Panel Date
250203	MARLBOROUGH, CITY OF	C	0025B	January 06, 1982

FIPS Code	Census Tract
25017	3214.00



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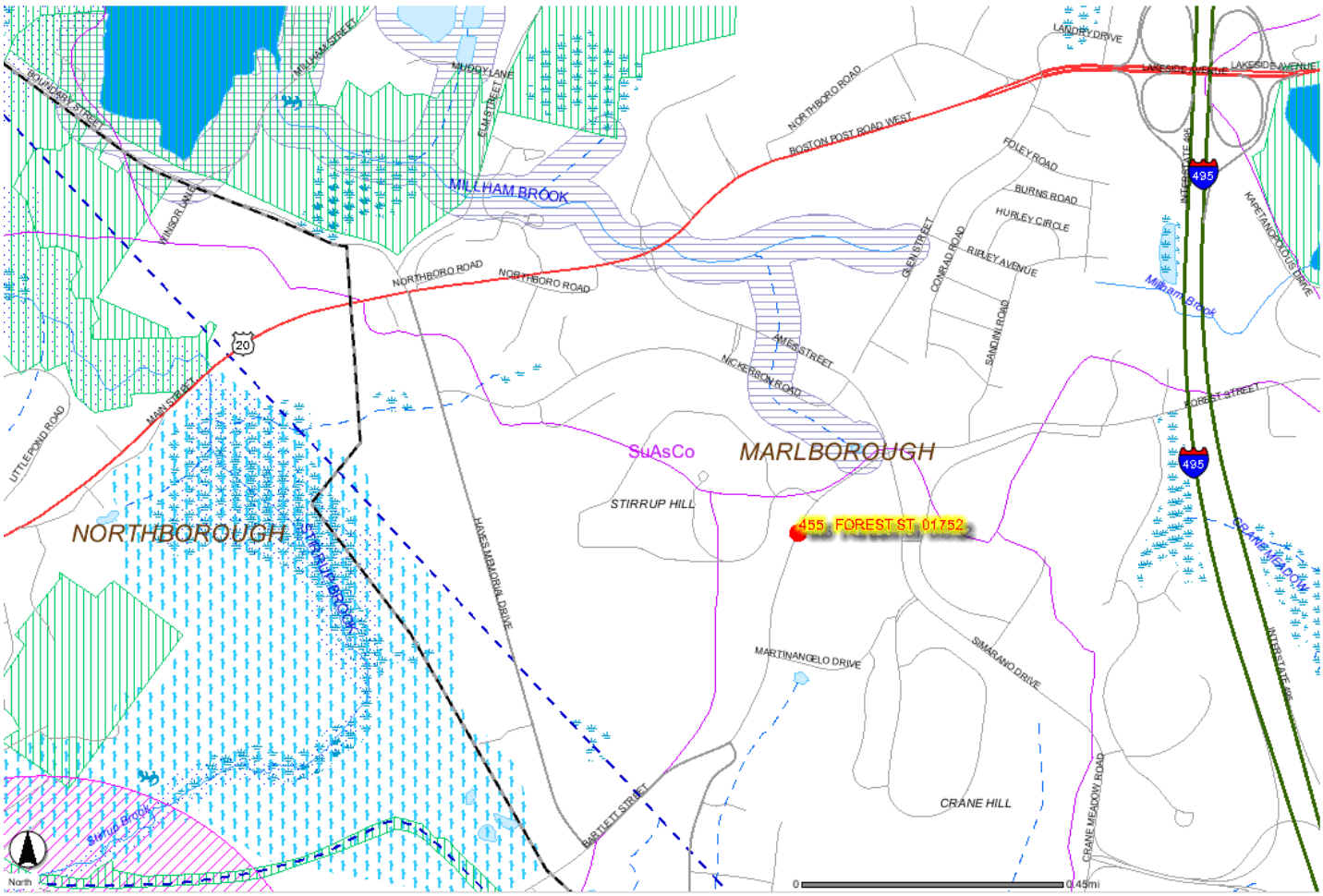
MILLHAM BROOK
NORTHBORO ROAD
BOSTON POST ROAD WEST
FOLEY ROAD
BURNS ROAD
HURLEY CIRCLE
RIPLEY AVENUE
GLEN STREET
CONRAD ROAD
SANDIM ROAD
AMES STREET
NICKERSON ROAD
MAIN STREET
LITTLE POND ROAD
BOUNDARY STREET
WINSOR LANE
MILLHAM STREET
MUDDY LANE
ELM STREET
LANDRY DRIVE
LAKESIDE AVENUE
INTERSTATE 495
KARETA NORTH DRIVE
FOREST STREET
SuAsCo
MARLBOROUGH
NORTHBOROUGH
STIRRUP HILL
455 FOREST ST 01752
HAYES MEMORIAL DRIVE
MARTINANGELO DRIVE
SIMARANO DRIVE
CRANE HILL
CRANE MEADOW ROAD
BARTLETT STREET
Stirrup Brook
North
0
0.45mi

Attachment D

Engineering Plans

- Main Pretreatment Facility
- ATC Pretreatment System

EBI CONSULTING
www.ebiconsulting.com

21 B Street
Burlington, MA 01803
Tel: (781) 273-2500
Fax: (781) 273.3311

January 4, 2008

Sarita Croce
Environmental Engineering Manager
Rohm and Haas Electronic Materials
455 Forest Street
Marlborough, MA 01742

Subject: Review and Certification of IWPS Drawings by MA-Licensed PE

Dear Sarita:

In response to your request to do so, Envirobusiness, Inc. (EBI) has completed a review of the two (2) industrial wastewater pretreatment systems (IWPS) currently operating at the Rohm and Haas Electronic Materials (RHEM) manufacturing and research campus located at 455 Forest Street in Marlborough, MA. This review was completed as part of RHEM's submittal to MA Department of Environmental Protection (MA DEP) under permit category BWP IW 38, in accordance with 314 CMR 7.00. Enclosed, please find a written Certification Statement, signed and sealed by a Professional Engineer licensed to practice in Massachusetts. In addition, four sets of PE-sealed drawings entitled "Industrial Wastewater Pretreatment Systems", dated 1-04-08, are enclosed.

The engineering review was completed by Mr. Christopher A. Walton, PE (MA license #39510). Mr. Walton is a Senior Engineer at EBI, with more than 17 years of experience with industrial wastewater pretreatment system design, permitting, construction, and operation. He is also a Grade 6C licensed wastewater treatment plant operator (MA license #8089).

Scope of Review

This engineering review is limited to the piping, equipment, and controls that comprise the facility's special waste collection and treatment systems (a.k.a Industrial Wastewater Pretreatment System, or IWPS), up to and including the facility's sewer connection in Forest Street. The scope of the review extends only to the piping and equipment as shown on the attached engineering drawings, dated 1-04-08. Process piping and operations "upstream" of the waste transfer stations in the Main Building are not included in this review. This review is also limited to an analysis of the facility's compliance with the design and construction standards set forth in 314 CMR 7.05(2)(g)3. Any certification made herein does not imply compliance with any other regulation or statute, nor does it relieve Rohm and Haas of its obligation to comply with applicable regulations.

Please feel free to contact me at any time regarding this certification and/or the attached drawings.

Very truly yours,
EBI Consulting, by:

Christopher A. Walton, PE
Senior Engineer

Cc: Paul Richard, EBI

Enc

P.E. Certification

Rohm and Haas Electronic Materials
455 Forest Street
Marlborough, MA 01742

Industrial Wastewater Pretreatment Systems – As-Built Process Flow Diagram and Layout

I, being familiar with the provisions of 314 CMR 7.00 (MA DEP Sewer System Extension and Connection Permit Program), regarding engineering design and construction standards for sewer connections and industrial wastewater pretreatment systems, have reviewed the industrial wastewater pretreatment systems in operation at Rohm and Haas Electronic Materials, located at 455 Forest Street in Marlborough, MA and believe that they have been designed and built in accordance with 314 CMR 7.05(2)(g)3.

This certification is valid for two (2) industrial wastewater pretreatment systems (Main Building and Advanced Technology Center (ATC) Building) as depicted in the as-built drawing set dated January 4, 2008, titled "Industrial Wastewater Pretreatment Systems", and inclusive of process flow diagrams and layouts for both industrial wastewater pretreatment systems in place at Rohm and Haas.

This certification is no longer valid when any planned or unplanned modification takes place that can change the quantity or quality of wastewater discharges from the facility. It is understood that Rohm and Haas Electronic Materials also certifies that the information provided is true and accurate.

This certification does not relieve Rohm and Haas Electronic Materials of its duty to operate its industrial wastewater pretreatment systems and sewer connections in accordance with 314 CMR 7.00.

Name: Christopher A. Walton

Date: 1-04-08

License Number: 39510

State Issuing License: MA

Attachment E

Description of Industrial Wastewater Pretreatment Systems

- Main Pretreatment Facility
- ATC Pretreatment System

PROCESS DESCRIPTION

Main Pretreatment Facility Process Description

The industrial wastewater treated in the Main Pretreatment Facility consists of several individual waste streams that receive segregated pretreatment, which is generally followed by flow equalization and dual stage pH neutralization. RHEM waste streams are segregated and collected in line storage tanks prior to treatment.

- *Dilute Process Rinse Waters (2nd Metal Bearing Rinses and Equipment Wash Down)*

Process second rinse water is collected in the 8,000 gallon main process tank. The effluent is pumped to one of three batch treatment tanks for metals removal.

The pH of the rinse water is raised to the appropriate pH for optimal removal efficiency with the addition of lime. A Barclay polymer-based flocculant is then added and mixed for a minimum of 15 minutes. In addition, polymer and coagulants are added as needed to enhance solids separation. When mixing is complete, the treated wastewater is allowed to settle for 1-4 hours. The supernatant is usually decanted to Neutralization Tank # 1; however the Post Tank may also be used for flow equalization and pH adjustment prior to discharge. Settled solids are pumped to the sludge thickening tank for further settling. The supernatant from the sludge thickening tank is eventually returned to the batch treatment tank process. Normally, the supernatant is pumped to the Post Tank, and sometimes to Neutralization Tank #1. The sludge is pumped to a dedicated filter press for solids dewatering. The dewatered sludge filter cake is shipped off-site for proper disposal as a non-regulated waste.

- *Metal Concentrates (Copper and Nickel 1st Rinses)*

Metal concentrates are segregated into separate holding tanks. The copper and nickel rinses are pumped to a holding tank prior to processing in the Calfran cold evaporation unit. The residual concentrate is collected and shipped off-site for disposal as hazardous waste. Effluent from the evaporation unit is directed to RHEM's main process tank for further treatment. The final step is flow equalization and pH adjustment prior to discharge.

- *Cyanide (1st Rinses)*

Cyanide rinses are collected in 55 gallon drums and shipped off-site for disposal.

NOTE: production of cyanide bearing chemicals has decreased significantly in recent years, and accompanying rinse wastes have been reduced to almost zero.

- *Acid, Alkaline, Ammonia and Hypophosphate Rinses (non-metal bearing waste streams)*

Confirmation metals testing are performed prior to discharging these rinses. These rinses are pumped to the post treatment tank for pH adjustment prior to discharge.

- *Tin (1st Rinses)*

Tin rinses are collected in a 500 gallon storage tank. The contents are treated for metals removal (see *Process Rinse Waters* above), and are then directed to the post treatment tank for flow equalization and pH adjustment prior to discharge.

- *Catalyst Reclaim (Palladium Rinse)*

Palladium is collected in drums and then pumped into a 200 gallon treatment tank, where the pH is then adjusted to 11 with the addition of sodium hydroxide. After settling for 4 hours, the decant is pumped to the main process tank for additional metals removal (see *Process Rinse Waters* above), and are then directed to the post treatment for flow equalization and pH adjustment prior to discharge. The settled palladium sludge is shipped off-site for reclaim.

- *Scrubber Wastewater*

The effluent from the R&D ion exchange system (see below) provides feed water to the scrubber system, which consists of three wet air scrubbers that treat fumes from various locations throughout the RHEM plant. City water is added to the scrubber system feed tank automatically when the volume of R&D system effluent is not sufficient for system operation. Scrubber system wastewater is discharged to the First Stage Neutralization Tank where wastewater is automatically neutralized by the addition of sodium hydroxide or hydrochloric acid, as needed.

R&D Ion Exchange System

Wastewater from various laboratory operations is pumped to a primary tank for pH adjustment, from which it overflows to a secondary tank for further pH adjustment. The wastewater is then pumped through dual cartridge filters before being pumped through one of two ion exchange units. The ion exchange effluent is pumped into a holding tank for final pH adjustment prior to discharge to the scrubber feed tank (see *Scrubber Wastewater* above).

ATC Pretreatment System Process Description

Rohm and Haas Electronic Materials, LLC (RHEM) Advanced Technology Center (ATC), also known as Fab 4, is located at 455 Forest Street in Marlborough, Massachusetts, a part of the larger RHEM complex. Operations at this facility are described by SIC Code 2899 (Chemicals and Chemical Preparations, Not Elsewhere Classified). The ATC facility is a state of the art photolithography processing facility, capable of housing and operating the most sensitive lithography tools available. The facility operates pilot size clean rooms to process semiconductor wafers and plating lines to process printed wire boards as well as a number of quality control and analytical laboratories. The process consists of photoresist developing in which an alkaline developer solution (~2% TMAH in de-ionized water) is applied to UV-exposed, resist-coated semiconductor wafers, followed by a de-ionized water rinse. Although the facility utilizes production scale tools, its main activities include research and development (R&D) and the quality control of RHEM's products. Hence, there are no products produced and no production at the site. Additionally, the chemical and semiconductor wafer throughput, along with other material usage, will be very low in comparison to a standard manufacturing facility.

Rinsewater from the developer process is piped to a 200-gallon storage tank. Once the volume in the tank reaches approximately 20% of its total capacity, the pH of the rinsewater is manually adjusted (usually lowered) to pH 7. The rinsewater is then transferred via a sump pump to a carbon filter and then two ion exchange cartridges connected in series. After ion exchange treatment, the wastewater is transferred to a pH adjustment tank for active neutralization with sodium hydroxide and sulfuric acid. The reverse osmosis (RO) reject water is transferred directly to the neutralization tank. The treated wastewater from the neutralization tank flows into a final equalization tank where the effluent pH and flow is recorded, before it is continuously discharged to the Marlborough Westerly Waste Treatment Works (MWWTW).

In April of 2008, RHEM will add an additional process to the existing ATC facility to be known as "Fab 5". Fab 5 operations are very similar to all the existing ATC operations. The addition of Fab 5 will increase the capacity of this facility. Wastewater from this building will be treated by the same industrial wastewater pretreatment system as the ATC building. Currently, there are no plans to add new chemicals for the processes in Fab 5. RHEM estimates that the total process flow discharged, including the new Fab 5, through this system will average approximately 2,500 gallons per day with a maximum of 3,000 gallons per day.